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The Effects of War on a Nation

THE EFFECTS OF WAR ON A NATION.

JAMES PETER WARBASSE, M. D.
Brooklyn, New York.

The cause of war is to be found in three great social sins—race prejudice, patriotism, and commercial greed for the profits of trade. Race prejudice is based on an inhumane ignorance of our fellow men. Patriotism is fealty to the ruling political machinery of one's country, the function of which is to protect a privileged, property-owning class, and to prevent an exploited working class from securing social justice. Between the two is the enlarged egotism which claims that our social duties are limited to family and country. The quest for the profits of trade in ever-widening markets is a necessary outcome of the economic system prevalent in all of the great war-like countries, because the wages paid to the producing class are not enough to permit them to buy back the products which they create; much of their product must, therefore, go to foreign markets if profits are to be produced for those who do not work.

These are the causes of war; and the effects of war are to approve, confirm, and strengthen these three social sins.

As race prejudice, patriotism, and the competitive struggle for profits brutalize a nation, so does war brutalize a nation. The purposeful killing and maiming of one's fellow men has only a degrading effect. The statement, oft made, that war engenders the nobler qualities of self-sacrifice and bravery is false and at variance with the fundamental principles of human virtue.

The soldier is apt to be a coward, who lacks the bravery and moral courage to stand up for his own liberty and a higher principle, and who falls a weak victim to a mob impulse. He takes in his hand his instrument of death and goes forth to kill fathers, sons, and husbands, hoping to come off himself alive. This is not a noble impulse. He resigns himself to be led like a sheep; and it is most fitting that he should be clothed in the skin of that docile creature. He loses the feelings of the man in the soldier.

The miserable business has to be settled by treaty and

agreement at last, after the killing has been done, and the belligerent countries are loaded up with widows, orphans, and heroes. All of these guarantee a generation of race prejudice against the country which fought them, a generation of patriotic "rallying round the old flag" of the government to which they happen to be subject, and a generation of reactionary consent to the big business which is protected by their flag. Added to this is the keeping alive of the military spirit. G. A. R.'s, Veteran Corps, and pensioners write, talk, sing, parade, and flaunt their bloody business in the faces of people who should be praying for peace and peacefulness. Not satisfied with this, it must be carried into the next generation by the Sons of Veterans and pensioners. When they have passed away, then it is that the sons of the revolution may come upon the field; but few there are who would be willing to be fathers of a revolution—that is never a fashionable thing. Revolutions that succeed in overthrowing a government produce great patriots; revolutions which fail are called insurrections or riots, and the revolutionists are hanged, languish in jail, or go down to history as "traitors to our beloved country." It depends upon who has the strongest artillery, whether one's ancestors are patriots or traitors.

Another effect of war is falsified history which lasts for at least a hundred years. We are only just beginning to have written with truth the history of our American Revolution. The petty business at the bottom of the Revolution, the old falsehoods assigning high-minded motives to the sordid makers of our constitution, the fiction of Washington praying at Valley Forge, the smuggling enterprise in our much misrepresented "Boston Tea Party" are just coming to light; but the old falsehoods still prevail in the books our children have to study. Our war with Mexico was so disgraceful an affair that no historian has dared put the truth about it in an American school book. He would have as much chance of having his book accepted in the United States as he would if it frankly told the story of the Government playing the part of freebooters or a "second story gang." The history of our Civil War is now hopelessly involved in a muddle of falsehood.

lingoism, and sectional and race antagonisms. There are two histories, quite different, one of the North, the other of the South—neither of them true, for the fundamental factors in the Civil War have not yet been put in the accepted school books. War falsifies history, and puts dishonesty into the minds of children.

War defiles the landscape with the statues of soldiers whose only claim to be cast in bronze was that they slew. Everywhere they stand, or bestride mighty stalions. Their eyes look fierce and staring; they never seem to be represented as kind or gentle men. There they are forever foisted upon us. We forget their names and their deeds. In winter they stand capped with the cold, unfriendly snow, in summer peaceful birds of the air bestow their salutations upon them—still they stand staring as though looking for more to slay. And that is what they are doing. They are beckoning growing generations on to the "glories of war." These figures proclaim to the young, "Behold! it was war that put us upon these imperishable pedestals!" and the child's heart naturally answers, "War must be a glorious thing."

The Navy League, The Gun Trust, The Army, The Navy, The Powder Trust, The Police, The Cossacks, The Private Deputy Sheriffs, Gunmen, Church Companies, The National Guard, and The Boy Scouts all have to thank these silent recruiting agents for their services. They help to keep alive the warring, killing spirit. They are the seal of public approval of murder.

Men who go to war, who destroy, kill, rape, pillage, burn, rob, and plunder, do not return to society with sweeter minds or more chastened spirits because of their experiences. Practising injustice upon strangers does not breed a spirit of justice toward our friends.

William Ellery Channing said: "Nations, exasperated by mutual injuries, burn for each other's humiliation and ruin. They delight to hear that famine, pestilence, want, defeat, are desolating a hostile community."

"The slaughter of thousands of fellow beings, instead of awakening pity, flushes them with delirious joy, illuminates the city, and dissolves the whole country in revelry and riot."

"Thus the heart of man is hardened. His worst passions are nourished. He renounces the bonds and sympathies of humanity."

War, like any other degrading movement, helps to fasten upon the people the prevalent religious superstitions. The church is always strengthened by war. Priests and holy icons flourish and are appealed to as never before. War is the heyday of the church. It gets close to the state and the flag, and flaunts its preposterous claims that it can bring to bear upon the situation the influence of higher powers which are beyond the reach of artillery.

The good that comes to a people as a result of war is disillusionment. This is the best hope. Eyes may be opened to the immoralities of race prejudice, patriotism, and commercial exploitation. The crimes which the state commits against society may be better understood when the state throws off the mask and reveals itself a cruel monster. Political diplomacy, militarism, and autocracy are shams; they are revealed by war to be the enemies of society. Out of the disillusionment may come readjustments toward democracy which may be of social service. But the good that comes from war is pitifully inadequate to compensate for the ill that war engenders.

384 Washington Ave.

THE EFFECTS OF WAR ON A NATION.

JAMES J. WALSH, M. D., Ph. D.,
New York.

I cannot help but think that the effects of war on a nation are always good, unless the war comes as an overwhelming catastrophe from which there can be no reaction. What mankind seems to think always is that peace and quietness and leisure and luxury and prosperity and good times must surely enable men and women to bring out what is best in them, and to cultivate the arts and be interested in great literature and in general make wonderful progress. As a matter of fact, peace is in many ways quite as dangerous for humanity as war. We sometimes forget how costly in human life, peace and its ways may be. After all let us not fail to recall that at the present time we are killing about 75,000 men a year in the industries and leaving a great many widows and orphans. Most of these deaths, and there are probably five times as many accidents as there are deaths, are to a great extent preventable. It is true that many of them are due to human carelessness, but humanity, being constituted as it is, is bound to be careless and we have to make provision to prevent it doing much harm.

The immense numbers who are killed in war are thought to represent a very great loss to humanity, but it is only in a very limited sense that that is true. I believe that an American humorist once said that "life is a very dangerous thing at best and very few of us get out of it alive." In the course of a generation practically all the men who are killed in a war would have died in the course of nature and after all is said and done what does a single generation mean in human history. A long life of idleness and ease, which is the ideal of a great many people had better not be lived. A life that is useful to only a very limited number of people, say those who are close relations of the individual may have very little significance. A great many lives are not only useless but positively harmful for those around them. An article on "The Horrors of Peace," in the *North American Review*, calls attention to the fact that while the Civil War in America brought about the death of half a million of men and left probably several hundred thousand widows, the divorce courts in the last twenty years have left ten times as many widows. The struggle for existence of the widow and her children after the death of the father in war had at least the advantage of the inspiration of his sacrifice and the sons of a soldier who lost his life had constantly before them their father's example to mean something for them in the spirit of duty. Our divorces take place for desertion, cruelty, adultery and drunkenness, and the moral effect on the lives of the children concerned in them is the worst possible. The proportion of the young folks in our reformatories and prisons, who came from divorced families, is very large.

If death were the end of all things for man, then war would be an awful horror, almost too dreadful to contemplate. Here would be annihilation for millions of men. If, as the world at least affects to believe and a great many of us believe very firmly, life is only an antechamber or place of probation to an endless existence, then war ceases to a great extent to be the hopeless evil that it seems to be. It is much better to die worthily than to live unworthily, and a people engaged in a great war have their spirits lifted up by it. The survivors are likely to make their lives mean ever so much more as the result of the example of those who

have died. The physical is, after all, but a very small portion of life compared to the interior life that men possess and if as we believe that it is to be continued, then the effect of a great trial, such as war with its attendant suffering and death constitutes what may be not only not evil but even beneficial.

What war above all affects for mankind is the bringing out of the spirit of unselfishness. Men think in terms of others. Men are willing to sacrifice themselves for a great cause. Men risk their own lives so that other men may be saved from death. This is the highest quality that man has and it is no wonder that when men are doing things of this kind genius capable of thinking is stirred to its depths and gives us great literature. Milton was formed for his great writing in the midst of the stormy times of the civil wars in England. Most of the men who have done great writing for us have suffered deeply; Dante an exile on account of war, Camoens, an old blinded soldier starving in a garret and barely able to subsist by what his Indian servant, all unknown to him, was begging for him; Cervantes, an old maimed soldier, in a debtor's prison; it is such as these, who gave us our greatest modern literature. It is usually presumed that an author must be surrounded by peace and quiet and must not be disturbed by cares and worries, but as a matter of fact, no one who was ever comfortable and nicely situated ever did anything for us that was worth while. Physical suffering is supposed to be an evil but it brings out the best that is in men and war is the greatest source of physical suffering that we have.

I am a pacifist, that is, a peace lover who believes that if men want to have peace they can have it. I do not believe, however, that men will ever have peace until they are ready to make some of the sacrifices for it that they now make so willingly for war. Here we find in the present war England and France, supposed to be hereditary enemies for centuries fighting shoulder to shoulder, while Russia, believed to be the worst possible enemy of England, makes the third in the alliance. They are all co-operating. French and English soldiers are fraternizing. If war can do that why cannot peace do it. Until peace can do it we shall have no enduring peace. We have heard much of commerce and world trade bringing nations together, but large selfish interests do very little to quell men's natural feelings and here is a war in which the commerce of the world is sacrificed and fifty millions of dollars a day being thrown away.

Yet I am quite sure that Europe will emerge from this conflict purged of much of the dross of mere selfish thoughts and sordid low aims to make some great advances and perhaps to add some precious treasures of art and literature to the heritage of mankind. We in our generation and for several generations, have been doing nothing worth while because life has been so trivial and thinking so superficial and entertainments of all kinds so insignificant.

It is a heavy price to pay for great thoughts, but anything that is worth while always costs a good price. What we buy cheap is usually worth just what we pay for it, if not much less. The effect of war upon a nation is to stir national feeling to its depths and to arouse the national intelligence to the best of which it is capable. I am not of those who think that this will be the last war of humanity. I think that it will bring us nearer to the last war but only in as much as it takes the nations of our time out of that deadly dullness

and unfortunate sameness of expression indicated by decadent sex literature, drama that was little better than a farce, art that was too trivial to talk about, when it was not a mere copy, and morals that were getting worse constantly and that were gradually coming to flaunt themselves in public as if to ask, "well, what of it?"

The one thing that is supremely important in life is seriousness. Virchow in an essay as a young man just entering the university nearly 100 years ago said that life was a serious business. Life was becoming anything but a serious business. Perhaps the war will restore to us something of our seriousness and if it does it effectually then, an enduring peace will be possible.

110 West 74th Street.

THE EFFECTS OF WAR ON A NATION.

WILLIAM LEE HOWARD, M. D.

AUTHOR OF "WAR AS A HOME-MAKER," "THE PSYCHOLOGY OF WAR," "PEACE, DOLLS AND FUGNACITY," ETC.

Westboro, Mass.

The majority of a heterogeneous crowd or nation represents the least intelligent and educated of the masses; the minority the intellectual and educated portion.

When the majority of such a nation is allowed to rule by the ballot the effect is obvious.

The war is to be the greatest educational institution this country has ever had or could have through national initiation. Real education of the masses has been woefully lacking. Public schools have taught just enough of the fundamentals and cultural to cause dissatisfaction for that form of labor for which most of the graduates are fitted. The schools have not taught their pupils to think. This is the basis of all right education. Public schools have not instilled into the pupils knowledge of man's place on earth; to do that for which he is best fitted. Most of them go out to help in the national and municipal wastage. Political parasites and criminal doctors instead of honest carpenters or able masons, are what we get from the public schools.

This war is teaching men and women to know the outside world. It will wash off provincialism and national conceit. Other national traits, history, ambitions, industries, and the psychologic bases of human impulses, are being brought to the American in tangible ways. The preacher will say less about God's power and more about man's failings. Men will become less bigoted, women more womanly, for the horrors and sufferings of millions of fellow men, women and children, reach the homes of all of us and directly affects the families of many among us.

This raises the humanness and intellectuality of the masses. It sets people to thinking, and when individual thinking commences among the masses of a nation there is fair prospect of social concord and political equality. This brings a willingness to abide by the judgment of intellectual leaders, and a ready recognition of the baneful influence of the demagogue. The ignorance which raises the demagogue to a demigod passes away when men commence to think.

The war will bring a realization to the people of the United States that they are not an independent nation; a nation which can superciliously flaunt avoidance of diplomatic and industrial relations with other nations. It will bring a sense of being really a part of the world's big family, and that it must act in decent concord with that family in large matters if it wishes to share in that family's progress.

The war will make us take that chip off our shoulders if we do not want it ignominiously knocked off. It will stimulate all sorts of industries we have neglected because we have been too indifferent to make what dollars could buy from other nations during times of peace. Dollars are fleeting factors; industries are permanent and progressive factors in civilization.

The war will be a tremendous factor in civilizing the United States. The needs of civilization in this country are greater than ever. We need a great increase of conscientious and able workers in all spheres. Discordant classes must recognize the values inherent in each and accept the different mental planes. All men are not born equal any more than horses. All men do not deserve the same social or political recognition. We shall learn through this war that politicians are not statesmen. We may learn to put men in high office through their ability to handle the affairs of that office.

We need a clean and real democracy; not the present damnmockery of common sense.

THE EFFECTS OF WAR ON A NATION.

ARTHUR C. JACOBSON, M. D.
Brooklyn, New York.

If all men were of one race, one class and one religion there would be no wars. Since such is not the case there are bound to be industrial, economic, intellectual and military conflicts. But wars cannot clarify things, because they cannot change race, even if they can factitiously change classes and religions. War is a futile and clumsy attempt to change, or alter, fundamental biological facts. Knox, the Scotch anatomist, said truly that you cannot make a Hollander of a Hottentot. Certainly war can't do it. You may "Christianize" a nation, and not alter essentially its pagan traits. You can only suppress them. Racial difficulties are apt to be intensified by war. For example, England is pouring into Europe at the present time hordes of troops from the East. It is a foolish thing to imagine that all of these Orientals are going back to their own countries after the war. New racial problems are being manufactured on a large scale. We have felt that there was more than one sinister connotation in this importation of Orientals. The bad moral effect upon the Orientals themselves is but a small part of the evil. It is the effect upon Europeans that should be considered, in the light of what is to come after the war through the presence of new ethnological problems.

The effects of the militarism of the battlefield obsess us to the exclusion of considerations of ecclesiastical militarism, public school militarism, socialistic militarism, and the subtle militarism that would seek to order our very thoughts—intellectual and moral militarism. What are the baneful effects of the militarism of the battlefield compared to these, after all? What of the militarism of the great Foundations, with respect to education? Have we not General Staffs of more than one kind?

We appear to be more concerned about the loss of a few lives in battle than about the maiming of bodies in the wars waged for the almighty dollar. Which is the greater and more serious warfare? As for the souls of men, they are of but little moment.

Fools prate about the too great freedom of men, when all are in some sort of chains.

What is the use of discussing the effects of the militarism of the battlefield—a paltry problem con-

sidered alongside of the greater tragedies that beset us? We leave it to one-idea academics.

When will human society cease being a practical joke of the gods? When shall men apply the Golden Rule in its negative form: Do ye not evil unto others, even as ye would that others should not do evil unto ye? The Rule has failed in its usual form.

One can only have faith in God and in his intervention, it would seem, for men do not appear to be equal to decent terrestrial requirements. Something went awry when the races were all huddled together on one planet. Only God Himself can bring order out of present chaos.

115 Johnson Street.

THE EFFECTS OF WAR ON A NATION.

GEORGE F. BUTLER, M. D.
MEDICAL DIRECTOR OF MUDLAVIA,
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We are all agreed, I think, that after the war "things will be different," but in what way, that's the question. Briefly, here are my ideas of the effects of the war.

On Europe: The shortage of money for many decades to come will necessitate a postponement of all progress in all spheres of life, equally in scientific research, education, art, social reform and religion, and even a curtailment of advances recently won, such as old age pensions and insurance against non-employment. The slaughter of the youngest and soundest male adults in Europe to a number that may approximate two millions must powerfully accelerate a race deterioration already in palpable progress throughout the peoples of Europe. Increase in numbers will be checked, and women in increasing numbers must enter the labor ranks.

On Asia: The war has assured Japan's national integrity and her supremacy on the Western Pacific against rivalry equally from Russia, Germany and Great Britain. Moreover, she now finds in China an open field which she can exploit alike in industry, commerce, education, politics, and, so far as Manchuria is concerned, in territory. This insures that the future destinies of the human race will be controlled, not as was until recently expected, by the white race alone, but by both the white and yellow, though in what ratio no one dare now predict.

The Effects on America: Henceforth the United States will far and away lead all other countries in wealth. The European belligerents are paying the piper by the sale of securities, mostly American, sold mostly to Americans, and largely for goods made mostly in America. Certainly, to lapse for then once into current slang, that is "going some."

Immigration is expected to increase with a rush as soon as the war closes. Of course, labor will be obliged to follow capital, to serve where there is money to pay for service.

Americans will be the least hated of any people upon earth; and, as ever, the "good fellow" will enjoy a distinct advantage over his rivals in any sphere whatsoever.

This increased wealth will promote in turn luxury, vice, and deterioration, unless our better sense stands guard, and leads us to complement material wealth with a bodily and mental development that will give us the leadership of the world, to the establishment of international law and that reign of justice that alone can bring lasting and satisfying peace.

Personally, however, I do not believe lasting peace will ever come while men live on this earth. It is as futile to hope to abolish war as it is to abolish the social evil. Victor Hugo wrote truthfully:

"For centuries past this war madness
Has laid hold of each combative race;
Whilst our God takes but heed of the flower,
And that sun, moon and stars keep their place.

The sight of the heavens above us,
The bird's nest and lily-white snow,
Drive not from the brain of us mortals
The war thirst, with its feverish glow."

The great German Fichte in "The Destiny of Man" says that wars will cease and there will come a time when selfish aims will no longer divide mankind; that men, no longer separated by private ends, will unite in one common end, and there will grow up a body everywhere animated by one spirit and one love. Beautiful, if true!

James Monroe, on the contrary, believed that wars would never cease; he said that at least one-half of every century in ancient as well as modern times, has been consumed in wars, and often of the most general and desolating character.

I fear there always will be wrong, hatred, selfishness—and consequently war.

"For never will right come uppermost,
And never will justice be done,
Unless there rises an awful host
Some day beneath the sun

And dooms its Kings to the bloody block,
Their palaces to the flame,
And breaks every fetter and yoke and lock
That binds it to its shame;

And burns in a bonfire every page
Of the laws that rule to-day—
That had their root in an ancient age
When savages held the sway.

But, mark the prophecy!—mark it well!
That time we will never know;
Forever the Strong will buy and sell
The Weak—it is ordered so;

And never will right come uppermost,
And never will justice be done,
Till we sail away from this mortal coast
From under this mortal sun."

THE EFFECTS OF WAR ON A NATION.

T. D. CROTHERS, M. D.
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This will be the study of future historians and students for centuries to come. We are too near it to-day to do more than realize the faintest effects of this epoch-making revolution. Already we are beginning to feel the stimulating influences, calling for larger farm productions and greater activity of the manufacturers. There are new possibilities and new demands for means and measures which must be met by physical and mental labor on a higher plane.

In the scientific world, the fields of discovery have widened to a startling degree, and new forces and new applications of electricity, and new methods of making it practical in the service of human endeavor, are becoming more apparent. A hundred possibilities in embryo have suddenly been born and will be clamoring for recognition, means for the development of life, increasing its capacity, diminishing mortality, and enlarging the scope and efficiency of the race.

Educationally, a great disillusionizing process has begun. The hero worship at the shrines of European centers will enter upon a decadent stage. The high tide of science and literature centered in the univer-

sities of Europe has been suddenly merged into militarism and brute force and will go down in the great wreckage.

The dream that they fed the torches of science and literature for the whole world will dissolve, and the paganism of church and state. This is only a repetition face in fearful magnitude.

Civilization and democracy will seek other countries for their growth and development.

America has attained a prominence in the world of science and culture that is startling in its possibilities. Here there is intellectual stimulation and freedom from every entailment of the past that would restrict and narrow its growth.

European civilization is breaking down, and new alignments and new adjustments, which will require half a century or more to re-establish are certain to follow. In the meantime an immense immigration will come to this country, immigrants of a stirring, restless class who seek a larger field of activity, free from the paganism of church and state. This is only a repletion of what has occurred in the past. Empires hoary with age and built on feudalism explode and scatter to other countries where they start up again, on a broader plain of freedom and democracy.

America is the Eldorado of the future and the center and hope for a newer and better race. America will become the great teaching nation of the world. Already it has attained scientific prominence in the development of theories and possibilities of the use of nature and its forces, and the war will give greater impetus to this and arouse greater ambitions to evolve and develop the possibilities of life.

This war is one of the greatest epochs of the age, and this country will feel its influence to a greater extent than can possibly be dreamed of at present. The longer the war continues, the more positive the reaction and desire for peace will follow when it comes to an end.

The brute age of the world is passing away, and its final explosion is going on in Europe. America is the Ararat where the great ark of freedom landed more than a century ago, and from this there will radiate a new world with new problems and new conditions. The effects of the present war will deepen and widen and become more and more apparent every day, but with them, there will come a stimulation and growth, commercially, hygienically and medically such as has never been seen before. The field of medicine will widen in unnumbered ways and the great scientific centers will be transplanted in America.

THE EFFECTS OF WAR ON A NATION.

J. WALLACE BEVERIDGE, M. D.
New York.

Mr. T. H. Price, editor of *Commerce and Finance*, believes that prosperity and not poverty will follow the conclusion of peace. According to his views, "Hysterics is scarcely too strong a word to apply to the popular vision of a world made bankrupt for a generation by the war which is now raging in Europe. Unless we are to abandon human experiment as our safest guide, it may be confidently asserted that general prosperity and not poverty will follow the conclusion of peace among the present warring nations, and that of this prosperity the present combatants will enjoy in no small measure."

One reason why this great war has made such a tremendous impression of ruin and disaster, is that the

suffering of non-combatants, destruction of property and great loss of life are concentrated into a narrow space and within a brief period of time, dramatizing as it were, the cruelties and outrages upon defenceless women, and barbarity in maiming, for life, innocent children, not to mention the destructive holocaust of art objects and buildings prized by both church and state.

The great fire following in the wake of the San Francisco earthquake a few years ago destroying \$300,000,000 of property excited world-wide sympathy, but every year in the United States more than this amount of property is destroyed by fire without arousing any unusual sympathetic thrill. The great *Titanic* disaster with a loss of 1,600 men, women and children aroused the sympathies of the whole world, but civilized humanity is not thrown into convulsive fits of excitement by the deaths of 1,600 men, women and children every day in this country from preventable diseases.

From out of all this physical suffering, mental torture, loss of life and destruction of property, which according to Sherman, emphasize war as "hell"—so graphically reflected at present upon the "War Stage" by the great European conflict now being enacted, we are inclined to view the appalling economic loss, commercial depression and industrial stagnation out of proportion to the difference between the toll levied by disease, death and disaster in the war zone and that levied by the same agencies in times of peace.

In the past men have predicted, that the great loss of life and property would make *IT* the last war, and that the expense would bankrupt the nations engaged and precipitate a general financial crisis for the countries involved, besides retarding the onward march of civilization—which the lapse of a generation would not suffice to repair, but a careful search of the annals of history fail to find any recorded evidence of the fulfillment of any such direful prophecies.

The Napoleonic wars brought a period of social and economic progress such as Europe had never before experienced in such a short period of time.

The Boer war cost England more than a billion dollars, but it ushered in a period of trade expansion which outstripped all previous records. The Spanish-American war brought a period of prosperity to the United States which eclipsed everything with the nation's experience.

The Civil War of 1861-5, was one of the longest of modern conflicts, one of the most expensive and one of the most destructive—to both life and property, yet after a short lived panic, trade and industry began to gather force, and in the defeated, though unconquered South, a new nation was born which has brought prosperity to all classes. It was during this war that the American telegraph system was perfected, and immediately following peace, agriculture and manufacturing boomed and the great railway systems of the country were built. What will be the common sense view and the probable consequences which will accrue to this country from the present European conflict?

While opportunity is knocking at our doors, it will not be considered mercenary or sordid to view with satisfaction, the many advantages that may accrue to this country as a result of the European war now raging, and we would be short-sighted indeed to overlook the remote or direct benefit which opportunity offers us, or to neglect any means for advancing our every interest.

One of the beneficial effects already patent to the wide-awake business man and one that will be of the greatest economic and commercial value is the stimulation of American brains and genius, to grasp the bull by the horns, and put new life and energy into the enlargement of the present industry of the manufacture of drugs, chemicals and dyestuffs, for which we at present largely rely upon European countries.

17 East 38th Street.

General Scientific

COMMENTS UPON APPENDICITIS AND ASSOCIATED LESIONS.*

ROYALE H. FOWLER, M. D.
Brooklyn, N. Y.

In this study, 50 cases of appendicitis operated upon by the writer and 69 additional cases associated with peritonitis, are analysed. In the first series, inflammation was limited to the organ in 12 cases (7 catarrhal or interstitial, 5 gangrenous). Abscess was present in 8 cases. Eleven cases were associated with peritonitis, spreading or diffuse. Nineteen cases were classified clinically and pathologically as chronic.

Acute Appendicitis, Limited to the Organs.

In regard to the incision in the thirty-one acute cases, that of McBurney was made in thirteen cases, the modified McBurney (the Fowler), in seven, the right rectus in ten. Herniotomy incision in one case.

Drainage was instituted in five cases in which the lesion was limited to the appendix. In the remaining seven cases in this class not drained, a wound infection resulted in one case. It was superficial to the external oblique aponeurosis. All cases recovered. The

ultimate result was a cure in twelve cases. One showed a slight incisional hernia.

A case of more than passing interest is the following in which a persistent developmental anomaly of position of the cecum was noted:

R. R., station agent in employ of Long Island Railroad, was seen in consultation with Dr. N. S. Wadhams July 31, 1912, at Westhampton Beach, N. Y.

He had been ill for two days. His chief complaints were peri-umbilical cramps and vomiting. The temperature was 101.4°, pulse 110, respiration 26.

There was rigidity and tenderness in the right upper quadrant, somewhat low for gall-bladder infection and high for appendiceal. High appendicitis was diagnosed.

The patient was removed at once to the Southampton Hospital and subjected to operation. The abdomen was opened through a modified McBurney incision, and after a rather protracted search the writer came upon a condition which is illustrated in Fig. 1. The appendix was adherent through its entire length to the posterior cecal wall. It is to be noted that the cecum, in addition to preserving the fetal position, showed the persistence of the conical type. The appendix was bulbous at the end, constricted at its middle. It was excised unruptured, the base tied off and the wound closed around a small cigarette drain, inserted into the bed which the appendix had occupied. Following a superficial infection, the wound healed. When the patient was last seen in October, 1912, he was in vigorous, robust health, carrying on his duties, perfectly cured, without bulging at the site of the incision, and with no symptoms referable to the non-descent of the cecum. Fig. 2 shows the various stages of the developmental period of the cecum.

* By courtesy, from the surgical clinics of Drs. R. S. Fowler and J. Bion Bogart at the German, Methodist-Episcopal and Kings County Hospitals.

Appendicitis with Abscess.

In the treatment of eight cases of appendiceal abscess, the appendix was removed in seven. In one case of long duration it was not thought advisable to break up the adhesions of the abscess wall. The wound healed. This case did not return to the writer for secondary operation. It is concluded that the organ had sloughed away. In this class is also included a case of empyema of the appendix. There was no drainage and no wound infection in this particular case. All cases recovered from the operation and were cured.

Right Inguinal Hernia Following Appendectomy.

The following case of incisional and right inguinal hernia is of interest.

Mr. A. H., aged 23, clerk, was operated upon for acute appendicitis in February, 1907. The McBurney incision was made. Wound drained. A ventral hernia followed. In 1908 the patient first observed a swelling in the right inguinal region. In March, 1911, the writer repaired by plastic operation the ventral hernia in the appendix scar without opening the peritoneum, treated the sac by inversion, and repaired the inguinal hernia by the Bassini method. Healing took place by primary union. The patient was examined nine months later, when both inguinal and ventral scars were firm and without signs of bulging.

The consideration of a possible relationship between the operation for appendicitis and the development of right inguinal hernia has not been frequently discussed in recent textbooks.

Pond reported a case in 1910 which had come under his observation.

In November, 1910, Hoguet, who studied 190 cases of right inguinal hernia at St. Luke's Hospital, occurring in the service of Drs. Robert Abbe and C. L. Gibson, found that there was an antecedent history of appendectomy in 8 cases.

More recently, Balfour, in analyzing 795 cases of right inguinal hernia occurring at the Mayo clinic from 1907-1912, found that 17 had been operated upon for appendicitis through the McBurney incision. Sixteen were of the oblique variety and 16 occurred in males. The period between the operation and the hernia varied from one month to seven years. Seven occurred in a year or less. The reason for the development of this condition may be traced to injury of the nerve supply of the muscle forming the inguinal canal. The muscles of this region receive their innervation from the iliohypogastric and ilioinguinal branches of the first lumbar nerve. These branches are subject to considerable variation from the normal and may be injured: (1) By direct section at the time of operation in case of a low incision. (2) Through pressure of the retractor. (3) As the result of pressure from a drain or infection of the abdominal wall. Such injury would be responsible for relaxation and atrophy of the muscles in the region under consideration. The ilioinguinal nerve is not so liable to injury as is the iliohypogastric.

Cases of right inguinal hernia developing after the lapse of one year following appendectomy must for the most part be excluded from this consideration as showing no relationship, for the reason that about 90 per cent. of cases of recurrent inguinal hernia and post-operative hernia develop within the first twelve months following operation.

These conclusions may be drawn: (1) It is not possible to assume that a right inguinal hernia occurring after operation for appendicitis is a true acquired hernia and the direct result of a trauma to the nerves supplying the inguinal region concerned in hernia. This injury may merely emphasize a pre-existing sac.

(2) A certain number of cases, those in which the interval is long, are probably coincidences.

(3) A low abdominal incision which injures the nerves under consideration may be followed by right inguinal hernia.

(4) Injury is usually dependent upon the use of a drain and infection of the abdominal wall. It has been observed most frequently following the McBurney incision.

(5) The presence of a pre-existing latent sac must be considered as a predisposing factor.

The following table shows the interval between appendectomy and the appearance of the right inguinal hernia in a series of 29 cases (Balfour, Hoguet, Fowler):

Under one month.....	3
One month.....	3
Three to six months.....	4
Six months to one year.....	5
One to two years.....	3
Two to three years.....	3
Three to four years.....	1
Four to five years.....	2
Five to six years.....	2
Six to seven years.....	3

Appendicitis Occurring in a Hernial Sac.

Two instances have been observed, one chronic appendicitis with adhesions, a second acute appendicitis with diffuse peritonitis.

CASE 1. Mr. V. P., aged 25, was admitted to the Methodist Episcopal Hospital, November 22, 1910. Diagnosis, right oblique inguinal hernia. The tip of the appendix was found in the sac, presenting at the internal ring (see Fig. 3). It was firmly adherent and could not be entirely brought out of the abdomen. It was freed in such a manner as not to endanger its nutrition, and dropped back into the abdomen. Excision, had it been possible, would have been the treatment of choice. The Bassini operation completed the procedure. On recent inquiry, no attacks of appendicitis have occurred.

CASE 2. A. A., aged 18 months, was admitted to the Kings County Hospital, October 30, 1914. Twenty-four hours before admission a swelling, which had existed previously from time to time in the right side of the scrotum, was observed to become persistent, red and tender. Patient vomited about one hour after the hernia came down. Efforts to move the bowels were unsuccessful from the onset.

Parents stated that operation was refused some time ago, when the child was taken to a hospital for that purpose.

Physical examination: Patient is a fairly well nourished child about one and one-half years old, appears acutely ill and in shock. Respirations are rapid and child seems very weak. The skin is pale and the mucous membranes are cyanotic. Head, ears, eyes, nose and neck negative. Thorax: Lungs clear. Heart: Very rapid, 140 per minute. Abdomen: Slightly distended. There is a swelling in the right side of the scrotum the size of a lemon, of doughy consistency, irriducible and inflamed.

Operation: Usual incision for inguinal hernia. Upon opening the sac there was a gush of thin yellow pus, odor of colon. The sac contained the cecum, the appendix and about two inches of the terminal ileum. They were adherent by plastic exudate. The appendix was attached to the posterior cecal wall. The entire gut was covered with purulent exudate. The appendix was excised. After reducing the incarcerated bowel there was a gush of thin purulent material from the abdominal cavity. A double rubber tube drain was inserted into the internal ring, the superficial wound packed with gauze and dressings applied. During and after operation the patient's trunk was elevated. Death in four hours from peritoneal shock and sepsis.

Appendicitis with Peritonitis.

Eleven cases of diffuse septic and spreading peritonitis including the above have come under the writer's observation. There is no doubt that these cases are becoming less frequent; that appendicitis is being recognized earlier and appropriate surgical treatment is urged by the medical advisor before peritonitis more or less extensive has supervened. Of the eleven cases, six were operated upon during the first 24 hours, five

at a later period of the disease. Six cases recovered, a mortality of 45 per cent. The deaths were attributed to shock and sepsis. Three cases occurred in children (two deaths) eight in adults (three deaths).

The appendix was removed in ten (in one the appendix had sloughed); inverted in seven and ligated in three. All cases were drained. Preference is given the double rubber tubes, surrounding gauze strips, introduced according to indication down to the stump or into the pelvis. Peritoneal lavage is not employed. All cases were treated with postural drainage before, during, and after operation.

Following healing, three cases showed a hernia at the site of McBurney's incision. Two have been operated upon by the writer and have remained cured.

The lesion; in eight cases the appendix was gangrenous and perforated. In one case peritonitis was due to empyema of the appendix, in one to a perforated gangrenous appendix with multiple abscesses. In one case of unusual interest a common domestic pin was found in a perforated gangrenous appendix completely surrounded by a hard fecolith.

Mrs. X., age 66, referred by Dr. W. H. Slaughter, was admitted to the German Hospital, August 28, 1911, with the following history: Temperature on admission 102.4-5, pulse 128, respiration 28. The chief complaint was diffuse abdominal pain. Present attack commenced three days prior to admission, with acute pain in the umbilical region which increased in severity and a few hours after the onset was followed by vomiting of greenish fluid. The following day pain was felt in the right iliac fossa and gradually spread until the entire abdomen was sore to the touch. Patient again vomited. At the onset bowels moved following catharsis. Last movement in the morning before the day of admission. Her past history revealed the fact that three years before she had an attack of abdominal pain with vomiting and without jaundice, which was diagnosed as gall-stone colic. Following the subsidence of this attack she was well until the present. Examination on admission showed a universally tender and rigid abdomen, somewhat distended. Facies of diffuse septic peritonitis. The preparatory enema was expelled clear, without flatus or fecal matter. A right rectus incision was made. Pus under tension spurted upon incising the peritoneum. The appendix was isolated, ligated and excised. A diffuse peritonitis was present. Large rubber drains were inserted into the pelvis and down to the stump of the appendix. Upon examination of the appendix it was found to be gangrenous at the middle, perforated and contained a large enterolith. The appendix was split, enterolith crushed, and the pin discovered entirely encrusted by fecal matter (Fig. 4). The head of the pin was directed downward. It is interesting to note that it was not the pin which had perforated the organ. The fecal concretion was very hard, distinctly laminated. From the fact that it had completely surrounded the pin it is probable the foreign body had been present a long time. It is possible that the attack of abdominal pain three years previously was due to appendicitis. We were unable to obtain a history of the woman having swallowed the pin.

As regards the character of the fluid, in these cases; a thin yellow sero-pus was encountered in eight about the cecum and in the pelvis; in one case, thin pus was found in the right upper quadrant, about the cecum and in the pelvis it was somewhat thicker; in one case thin yellow pus with multiple abscesses. In as far as it is possible to determine the extent of peritonitis in these cases, it appeared to the writer in all cases to be limited to the right half of the abdominal cavity. Seven cases were diffuse, four were spreading. Of the five fatal cases, two survived the twelve hour period following operation, and two twenty-four. One case died in 4 hours. Of these cases one required an enterostomy for the relief of dynamic intestinal obstruction which became complete immediately following operation. One case, operated upon in an advanced stage

of diffuse peritonitis developed a paralytic ileus and spontaneous fecal fistula. She died from exhaustion on the fourth day.

The writer has analysed a series of 69 cases of diffuse septic peritonitis which were operated upon at St. Luke's Hospital during the period from July 1, 1898, to January 1, 1908.* The result of this analysis will be stated in brief and the eleven additional cases which have since come under observation will be summarized therewith.

In the series of 69 cases, 48 deaths occurred, making mortality of 69.5 per cent. Peritoneal lavage was performed in 50 cases with a mortality of 66 per cent. In 19 cases, irrigation was not used and they showed a mortality of 78.9 per cent. Postural drainage was instituted in 32 cases with 16 deaths, a mortality of 50 per cent. Fifteen cases occurred prior to 1900, the year this method of treatment was devised by the late George Ryerson Fowler, and 54 cases after 1900. Death occurred in 18 of the 22 cases in which postural drainage was not employed, making a mortality of 81.8 per cent., or an increase over those treated by postural drainage of 31.3 per cent. The mortality of 15 cases occurring in 1898 and 1899 was 93.3 per cent., the mortality in 54 cases occurring in the successive years up to 1908 was 62.9 per cent. In four cases enterostomy was performed, three died.

Year	Cases	Deaths	Mortality	Irrigated	Not Irrigated	Postural Drainage	No Postural Drainage	Enterostomy
				Died	Died	Died	Died	Died
1898	4	4	100 %	4	0	0	4	0
1899	11	10	90.9 %	8	7	3	0	11
1900	8	6	75 %	6	4	2	1	7
1901	5	2	40 %	4	2	1	0	4
1902	2	2	100 %	1	1	1	0	2
1903	4	4	100 %	2	2	2	4	0
1904	10	7	70 %	8	6	2	1	6
1905	7	4	57.1 %	4	3	2	5	2
1906	7	5	71.4 %	3	2	4	3	4
1907	11	4	36.3 %	10	3	1	11	4
1910-1915	11	5	45.5 %	0	0	11	5	0
Total	80	53	66.25 %	50	53	30	19	43
Mortality			66.25 %		66 %	63 %	46 %	81 %

* Statistics since 1900, i. e., when postural drainage was first advocated.

In summarizing the facts contained in the accompanying table we may conclude that:

(1) The general mortality of cases of appendicitis with peritonitis in the series of 80 cases, irrespective of any particular method of treatment has been reduced during the period covered by 1898 to 1915 by 55 per cent.

(2) The average mortality in the series operated upon in these successive years is 66+ per cent.

(3) The average mortality for the last fifteen years (since 1900) is 60 per cent.

(4) In the further consideration of cases occurring since 1900, when the principle of postural drainage was promulgated, we observe that the average mortality in those cases in which this method of treatment was used is estimated at 46+ per cent. and that the average mortality of cases covering the same period, in which this method was not employed is 81+ per cent.

(5) The figures are not so striking in the comparison of other methods of treatment, as in irrigated cases for example compared with those which were not irrigated. The average mortality in cases which were irrigated is 66 per cent., in those which were not irrigated 63+ per cent.

(6) It is fair to assume that the reduction in mortality by 35+ per cent. in those cases covering the same period, in which postural drainage was used as compared with those in which it was not, is largely due to this particular method of treatment.

* These cases occurred in the services of Drs. C. L. Gibson and B. F. Curtis.

After consideration of this class of cases the writer concludes:

(1) The preoperative and postoperative importance of the elevated head and trunk position is underestimated. Postural auto-drainage, to be effectual, must be maintained all the time.

(2) It is therefore strongly advised that suspected cases of acute appendicitis be placed and maintained in the Fowler position. Early institution of postural drainage is of great benefit in preventing the absorption of septic material from the diaphragmatic peritoneum. Ambulance cases of appendicitis should be brought to the hospital in the sitting posture. The cart which transfers the patient to the operating room should be elevated at the head. The trunk should be elevated during the operation.

(3) Oschner's treatment should be instituted before and after operation and Murphy's proctoclysis practiced.

Chronic Appendicitis.

Nineteen cases. Incision. Right rectus in ten, MacBurney in six, Fowler or Weir extension in two. Concomitant lesions were noted as follows:

Right salpingitis	2
Retroversion of the uterus	3
Tubal abscess	1
Ovarian cyst, right	3
Incomplete abortion	1
Double cystic ovaries	1
Right hydrosalpinx	1
Subserous fibroids	1
Right pericolic membrane	1
Lane kink	1
Ptosis, liver-trans. colon and stomach	1
Ptosis, stomach, cecum and trans colon	1
Right inguinal hernia	1

These various lesions were dealt with in a manner which seemed best adapted to each particular case. For retroversion the Coffey round ligament plication was performed.

280 Jefferson Ave.

WEAK FEET.*

With Analysis of Three Hundred Cases.

JACOB GROSSMAN, M. D.,
New York

Before analyzing this series of three hundred cases of weak feet, I should like to review some important facts which have a bearing on this condition. This condition has been erroneously called flat foot, as not only this analysis will show, but an analysis of 2700 cases of Whitman's has also shown. Every case of flat foot is a weak foot, but every case of weak foot is not a flat foot.

There are three types of the weak foot.

(1) Where there is slight valgus and the arch is of normal depth.

(2) Where there is more marked valgus and the arch as a whole has been lowered.

(3) Where the arch has disappeared, that is where the keystone of the arch has broken down.

Etiology.

Weak feet very commonly occur where there is

(a) *Overstrain and injury*, from a good deal of standing or walking, as in policemen, barbers, letter-carriers, waiters, sales people, etc.

Poorly fitting shoes.

(b) *Overweight*.

(1) Obesity.

(2) Pregnancy.

(c) *General weakness*, following a prolonged at-

tack of grippe, rheumatism, gonorrhea, typhoid, diphtheria, etc.

In our series of cases there were

<i>Sex;</i>		
Female	201	67%
Male	99	33%

<i>Age;</i>		
15 to 45 years	225	75%
Below 15 and above 45 years	75	25%

<i>Duration of symptoms at first visit.</i>		
One day to one month	50	16 2/3%
One month to one year	216	72%
More than one year	34	11 1/3%

Pain;

There were 271 or 90 1/3 per cent. who complained of pain, divided as follows:

Feet and calves	155	51 2/3%
Calves	36	12%
Lower extremities	35	11 2/3%
Back and thighs	16	5 1/3%
Ankles	15	5%
Knees	14	4 2/3%

One extremity where both feet were weak, there was 84 or 28 per cent. Of these there were:

Right	36	12%
Left	48	16%

No pain present.

Came for other complaints, 29 or 9 2/3 per cent. Of these.

Tired very easily	10	3 1/3%
Limped	4	1 1/3%
Injury	1	1/3%
Ankles turn	7	2 1/3%
General muscular relaxation	2	2/3%
Sent in as spine cases from school	4	1 1/3%
Numbness	1	1/3%

Objectively;

Eversion	300	100%
Swelling	31	10 1/3%
Spasm, stiffness	26	8 2/3%

Remarks;

Associated with acute articular rheumatism	2	2/3%
Treated for rheumatism	30	10%

Symptoms;

The symptoms of this condition rarely depend upon the amount of deformity present, cases with just a slight eversion of the foot may suffer severely and on the other hand, cases with a severe pes planus may suffer very mildly.

Symptoms.

(A) Subjectively

(a) *Pain*, which varies from a severe cramp, shooting pain to a dull ache and maybe referred to points distant from the feet, as back, hip, thighs, knees, calves and to the feet themselves. Another characteristic feature about the pain, is that it disappears at rest, as in sitting down and reappears when walking or standing again.

(b) *Weakness, discomfort*, tired and strain on the foot and ankle or a dull ache in the calves of the leg after standing.

(c) *Coldness and numbness* which is due to the impaired circulation.

(d) *Limp or staggering* especially noticed after sitting or on rising in the morning and due to the fact that there is a certain relaxation of the tension when the foot is at rest.

(e) As a result of all these symptoms there may be mental depression and nervous symptoms.

(B) Objectively,

(a) The commonest sign in our series was *eversion* of the foot which varied from a slight amount to a marked degree. The amount of eversion can be determined by;

* Read at the Lebanon Hospital Alumni Society, January 5, 1915.

(1) Having the patient stand with his back towards the observer and seeing how much the heel cords and heels deviate away from the mid-line of the leg.

(2) Recognizing the degree of displacement of the anterior tibial line to the inside of its normal direction and inward rotation of the leg.

The anterior tibial line can be found by following a line passing along the crest of the tibia. Normally this falls over the second toe. In weak feet its position may be within the great toe, or even over the center of the inner border of the foot.

(b) *Swelling* usually found at the outside of the ankle and usually present in fleshy people.

(c) *Muscular spasm or rigidity* usually present in the advanced type of cases. The spasm being due to the shortened and contracted muscles on the outer and upper surface of the feet from the persistent attitude of valgus.

(d) *Limitation of range of motion*, is one of the earliest signs of weakness. Varies normally and is usually greater in childhood than in adult life, greater in the slender than in the fleshy foot and greater in the foot used properly than in one that is not.

One first tries simple dorsal and plantar flexion, the leg must be fully extended at the knee. Normally the foot can be flexed from 10 degrees to 20 degrees less than the right angle and can be extended from 40 degrees to 50 degrees beyond the right angle. The range of motion being from 50 degrees to 60 degrees.

Passively the range of dorsal flexion is about 5 degrees to 10 degrees beyond that of active flexion. Extension is about the same as active extension, adduction is considerably beyond that of active adduction.

These limitations in motion are caused by the changes in structure in accommodation to functional use. These are at first evident in the muscles and ligaments and later in the articular surfaces of the bones.

Newton Shaffer (*N. Y. Med. Jour.*, 1897), at first thought that the limitation of the range of motion in the foot was due to the shortening of the tendo achilles, but later on he modified this statement by saying that in 90 per cent. of the cases of weak feet, the causes of this limitation was due to a shortened tendo achilles.

Geist, Minneapolis, (*J. A. M. A.*) found this to be true in 16 per cent. to 18 per cent. of his cases.

Hoffa, Whitman and Osgood have also found this to be a factor in some cases, but in not so many as the former have reported.

In our series we have failed to find a shortened tendo achilles in a great many of the cases.

The proper way to demonstrate this shortening of the tendo achilles, is to keep the patient's knee straight (gastrocnemius is inserted above the knee joint and if the knee is bent there is a great deal of slack, which is taken up when the knee is extended as in standing) dorsi flexion stops inside of a right angle.

Treatment.

(A) *Early cases*, by that is meant, where passive motion is painless and free to the normal limit.

(a) *Exercises*, to strengthen the muscles. Voluntary exercises strengthen the adductors and plantar flexors, this is usually done by means of tip toe exercises; patient places feet in the attitude of moderate inward rotation, raises the body on the toes to the extreme limit, the limbs being fully extended at the knees, then sinking slowly, resting the weight on the outer borders of the feet in marked varus repeating about twenty to thirty times.

Another good exercise is to rest the weight on the

outer borders of the feet, bending the knees so that they form the letter O.

(b) *Proper shoes* relieve the muscle strain. A very good shoe should have a broad stiff shank, broad low heel, a rounded toe, a straight last and a lift of an eighth or an quarter of an inch on the inner side. The shoes I have here are made by Max Deutsch of this city and have proven very satisfactory.

As a rule this treatment is all that is required in this type of cases. Where the patient is unable to prevent deformity voluntarily, especially in the weak foot of childhood, a support is necessary to hold the foot in proper position and to relieve the discomfort. In selecting a support for the weak foot, one should remember the nature of the deformity and that is, that the acquired weak foot is not a direct breaking down of the arch, but a lateral deviation and sinking. Thus a support to be efficient must hold the foot laterally as well as support the arch. The support which has been found to be very efficient is the Whitman's brace. This brace should never be applied to a deformed and rigid foot, because it cannot adapt itself to the support, the spasm and rigidity should be first relieved as is mentioned later on.

To properly construct a brace to fulfill these conditions it is necessary to provide a plaster cast of the foot. The method of making such a model is fully described in Whitman's Orthopedic Surgery, pages 732 to 737.

The brace should be worn at short intervals at first and gradually worn for longer periods of time until it can be worn comfortably all the time. Thus our patients are told to wear the braces for one hour the first day, two hours the second day, increasing one hour daily, until it can be comfortably worn all day. The length of time the support is necessary varies with the condition of the patient and the strain to which the feet are subjected. The brace should be corrected from time to time so as to conform with the changes taking place under its use.

(B) *Where there is muscular spasm or slight rigidity*, where passive motion is painful and not free to the normal limit, the application of

(a) Stretching gradually either manually or by means of machinery and strapping, usually offer a good deal of relief and overcome the deformity.

(b) Strapping is of especial service where the symptoms are acute. The following method as advocated by Cottrell and Gibney and Whitman is the one used in our clinics and has proven very satisfactory.

One end of a strip of adhesive plaster, about fifteen inches long and three inches wide is applied to the outer side of the ankle just below the external malleolus; the foot is then adducted as far as possible and the plaster is drawn tightly beneath the sole up the inner side of the arch and leg is kept in this position by one or two plaster strips about the calf. Narrow strips are then applied about the arch and ankle in the figure of eight manner. Strapping should be done twice a week, until the spasm and slight rigidity has been overcome. When this has been accomplished the brace and proper shoes should be worn as previously described.

(C) Rigid weak foot.

Where there is marked rigidity and deformity forcible over correction under anaesthesia is the best method of treatment. In this type of weak foot, the foot is rigidly held in the deformed position by muscular spasm and by secondary changes in its structure. The deformity

is usually a dislocation in which the astragalus has slipped downward and inward and into a position of valgus, the remainder of the foot being turned outwards.

The object of the treatment is to overcome this deformity and fixing the foot for a time by means of a plaster of paris cast in a position of extreme adduction and supination. The cast should be kept on for about

Achillotomy followed by proper after measures where there is shortening of the tendo achilles has been done.

Summary and Conclusion.

In conclusion will emphasize the importance of examining the foot for eversion of the heels and heel cords, in cases complaining of indefinite pain where no local manifestation are present.



Case No. 1.—E. F., 6 years old. No subjective symptoms. Eversion both heels and heel cords. D. W. F. (non spastic). Double weak feet. Treatment.—Proper shoes and exercises.



Case No. 2.—E. S., 4 years old. No subjective symptoms. General muscular weakness following a prolonged attack of diphtheria. Eversion both heel and heel cords. D. W. F. (non spastic). Treatment.—Shoes and exercises.



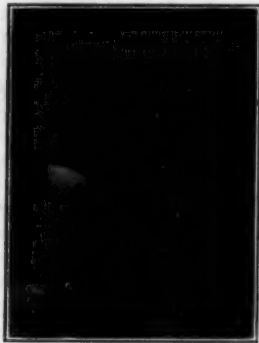
Case No. 3.—G. M., 15 years old. Subjectively. Occasional cramp in calf muscles. Objectively. Eversion both heels and heel cords. Diagnosis.—D. W. F. (nonspastic). Treatment.—Proper shoes and exercises.



Case No. 4.—F. M., 21 years old. Subjectively. Tires very easily, no other symptoms. Eversion both heels and heel cords. Diagnosis.—D. W. F. (non spastic). Treatment.—Proper shoes and exercises.



Case No. 5.—F. J., 16 years old. Pain in both feet, worse in left. Examination.—Eversion both heels and heel cords. Diagnosis.—D. W. F. (non spastic). Treatment.—Proper shoes and exercises.



Case No. 6.—M. B., 32 years old. Subjectively. Pain right sciatic region for 2½ years. Treated as a case of rheumatism without result. Objectively. Eversion both heels. Diagnosis.—D. W. F. (right spastic). Treatment.—Strapping, proper shoes, Whitman's braces.



Case No. 7.—M. H., 35 years old. Subjectively. Pain in both calves, inability to stand for a long time. Objectively. Eversion heels and heel cords—limited adduction. Deformity of rigid W. F. Diagnosis.—D. W. F. (rigid). Treatment.—Stretching, strapping, shoes, Whitman's braces.



Case No. 8.—M. G., 37 years old. Subjectively. Pain in the knees for the past six months. Objectively. Eversion heels and heel cords. Limited adduction. Deformity of rigid W. F. Diagnosis.—D. W. F. (rigid). Treatment.—Stretching, strapping, shoes, Whitman's braces.

four weeks, when it is removed and casts for a pair of braces made. The cast should be reapplied until the braces are ready, when it can be dispensed with and braces are worn. Systematic manipulation should then follow until passive motion is free and painless. This is usually accomplished in a month.

Operative treatment has not proven very successful. The operation usually performed is the removal of a wedge from the astragalo-navicular region.

Average Age at Death.

The average age at death for both sexes in 1913, from all causes combined, was 39.8; for males alone, 39.2; for females alone, 40.6. The corresponding averages for 1912 were 40.6, 39.9 and 41.4. The report cautions the reader not to confuse the average age at death with expectation of life as given in life tables.

Nearly 18 per cent. of all deaths were of infants under 1 year of age, and more than 25 per cent. were

(1) There were only twenty-six cases which showed a distinct flat foot or pes planus, showing how one can be misled in the diagnosis when one depends on a flat foot impression.

(2) Eversion is the most constant sign present.

(3) I wish to express my indebtedness to Dr. S. Kleinberg for his kindness in allowing me to present this analysis.

1051 Boston Road.

of children under 5 years. After the first five years of age deaths are most frequent among persons between 70 and 74, inclusive. This applies to both sexes combined and to women alone, the deaths among these groups forming 6.56 per cent. and 6.88 per cent., respectively, of the corresponding totals. For men alone, however, the period of greatest mortality is between the ages of 65 and 69, inclusive, the deaths during this period constituting 6.4 per cent. of the total for males.

GYNECOLOGICAL SURGERY.*

ALBERT M. JUDD, M. D., F. A. C. S.

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Brooklyn, N. Y.

Dyspareunia.

Comments.—This young woman of 20, married a year and a half, is suffering from dyspareunia. Her husband has never been able, successfully, to have intercourse with her.

Two weeks ago I made deep longitudinal incisions in both vaginal sulci that I might destroy the tender hymen existing and enlarge the narrow introitus, and closed the same transversely. In other words, I made an artificial laceration of the perineum. Twelve days after the operation she developed secondary hemorrhage, which, while not alarming, I considered best to stop. I endeavored to do so without an anesthetic yesterday but her hysterical condition would not allow manipulation, so today I am giving her a general anesthetic and as the sutures in the upper part of the patient's left sulcus have given way, allowing a slight oozing, I will control the bleeding with suprarenal extract.

I have had two of these cases in fifteen years. One of the patients became pregnant within six months after operation and was successfully delivered of a living child. The other, while she could successfully have intercourse, has never become impregnated and is now under my care after an interval of nine years, with a fibroid uterus.

Curettage for Incomplete Abortion, and Vaginal Plastic Operation.

Comments.—This patient is a multipara. Her last regular menstrual period occurred ten weeks ago. She evidently had become impregnated and states that two weeks ago she began to have pain in the lower abdomen and has what the doctor said was a miscarriage. She was admitted to my service four days later still bleeding. We found evidence of an incomplete abortion with an old second degree laceration of the posterior vaginal wall, worse in the left sulcus. This patient has, in addition, evidence of probable tuberculosis, dullness and rales at the apex of the right lung.

Operation.—I have my plastic operative cases catheterized after the anesthetic instead of before. In doing plastic work followed by an abdominal section, the patient is to be again catheterized after the finish of the plastic.

I have to do a tracheloplasty. All curettings are saved and sent to the pathologist.

Q. Do they make a diagnosis of a pre-cancerous stage for you on those scrapings?

A. We sometimes get a diagnosis of adenocarcinoma which would have been otherwise missed, but what we are looking for, particularly in these patients who have been recently impregnated, is chorio-epithelioma. I have four cases to my credit discovered only in this manner, and those four are living and well for a period of from two to five years subsequent to operation, doing a complete hysterectomy.

Q. What strength iodine do you use?

A. I use half strength. Superficial burns of the abdomen have followed the use of even half strength iodine. I have had so many burns following the use of iodine in varying strengths that I have practically made up my mind to abandon its use. Some men use plain gut for their tracheloplasty, but I am not

yet ready to abandon the use of chronic gut. The older operators used silver wire and some of the most beautiful results on cervixes that I have ever seen were some of those done by the older plastic operators.

When these patients come in with incomplete or inevitable abortions, it is a shame to just curette them and leave them without taking care of the plastic work that could be easily done at the same time.

Tracheloplasty is an operation that everyone thinks he can do, an operation which, like curettage, is very much abused. I like to be satisfied that there is no bleeding. One piece of gauze in the vagina is a good tell tale for bleeding.

Q. How much fear have you of getting into the rectum in doing a perineoscopy?

A. Considerable. One has to be very careful in this matter. The best description of the levator is that by Dr. Browning, who was formerly anatomist of the Long Island College Hospital. In his description he describes the portion of the levator coming from the os pubis, the portion coming from the triangular ligament, the portion coming from the white line and the portion coming from the ischium. Those have been divided up by different anatomists, but they really make up the whole of the levator ani muscle.

Pelvic Abscess.

This case is extremely interesting. I have been studying it for ten days and have not yet arrived at a diagnosis.

In the family history the only thing that is interesting is the fact that the father died of pulmonary tuberculosis. The patient is a widow of 48. She has had two children and no miscarriages. Two weeks previous to her admission she began to have pain in the epigastrium, abdominal distention and severe diarrhea. She comes from the country (Long Island.) That is perhaps an interesting point in studying the history of a case. She was told that she had typhoid fever and came to us with a large mass occupying the entire hypogastric region. The mass is smooth and at the time of her entrance was the shape and size of a four months' pregnant uterus. She was tender along the right margin of this mass; over the remainder no sensitiveness was obtained. The menstrual periods have been perfectly regular; at times profuse. She had flowed for two weeks previous to her admission. She has run a temperature of from 100° to 103°; has had no chills. She has a blood count of 12,000, polys. 84 per cent.

Another interesting thing in her physical examination is the fact that she has had a severe laceration of the perineum which has involved the sphincter ani muscle. There is almost no sphincteric action at all when the finger is inserted into the anus. That in itself may explain the fact of her diarrhea—her inability to control the sphincter muscles. The urine is negative and the kidneys are not palpable. I have taken up here the differential diagnosis, going at it from the standpoint of fibroid of the uterus. Fibroids must be differentiated from an anteversion of the uterus or a retroflexion of the uterus and can be very easily identified by a physical examination and a sound; not that I would advise the use of a sound indiscriminately, but in order to differentiate one must sometimes use one.

Secondly, a chronic metritis with enlargement. The enlargement is regular. In a fibroid it is not so apt to be regular (irregular enlargement,) although we do get interstitial fibroids which produce a regular enlargement. In chronic metritis the bleeding is not so profuse. Chronic metritis gives a sensitive uterus, which a fibroid will not, unless there is some inflammatory condition, like the lighting up of pus tubes.

An inversion of the uterus is something one seldom

* Gynecological Clinic held at the Kings County Hospital.

gets, but that can be easily differentiated by the fact that one cannot pass a sound into the canal because the canal is obliterated by the inversion.

A normal pregnancy is one of the things which it is very hard sometimes to differentiate from a fibroid. Here we have amenorrhea and Hegar's sign, and in the early pregnancies the probable signs of pregnancy; later, positive signs of pregnancy. If pregnancy occurs in a uterus already the seat of a fibroid without hemorrhage, I would not blame any one who was unwilling to make a positive diagnosis without watching the case.

In ectopic pregnancy the mass is sensitive and is to one side of the uterus. There is a history of a postponed menstrual period or a period of amenorrhea, together with a history of a seizure with sudden abdominal pain. I find that all these cases of ectopic, whether a tubal abortion or rupture, if seen early, have extremely anxious expressions on their faces. I saw one only three weeks ago. I could map out a resistance in the left fornix, but no mass, but she had that extremely anxious appearance which made me believe with her menstrual history (which was suspicious,) that we were dealing with an early probable tubal abortion with just a little oozing from the end of that tube. The operative findings proved the diagnosis to be correct.

In pelvic hematocele there is the history of the pain at the time the hemorrhage has occurred.

With a pelvic exudate there is a history which one may get in intelligent patients of an infection, but not so easily in the unintelligent, with temperature and with pus tubes we also get history of an infection.

Ovarian tumors—fibromata and dermoid cysts are most frequently mistaken for fibroid of the uterus because of the fact that they are likely to become adherent. The cystic tumors would only be mistaken for a soft cystic fibroid, and if traction is made on the cervix of a uterus which has been beside it a cystic tumor of the ovary and the finger is put into the rectum; the pedicle is easily felt.

Intraligamentary cysts are very hard to differentiate from fibroid. The only thing that makes one suspicious is the physical sign of fluctuation, which is sometimes elicited.

In malignant tumors of the uterus—carcinoma and sarcoma, the uterus is softer than in a fibroid. The same condition exists in chorio-epithelioma, the uterus is softer. In chorio-epithelioma there is a history of pregnancy, either recent or sometime previously, generally within the last year. The most serious mistake is to confound a soft myoma with a pregnancy and vice versa. Last, but not least, is something that I had brought to my attention within the last four days, the confounding of a fibroid polyp with an inevitable abortion. The case was referred to me for operation, as an inevitable abortion under an anesthetic, I having not previously seen the case. It would seem that such an error was avoidable, but I can see how it is easily made with an irregular menstrual history and with an endometritis which has given some excessive bleeding, but it must be remembered that in an inevitable abortion which has gone to the point where there is two fingers' dilatation of the cervix, the cervix is going to be thin and soft. The cervix in a fibroid polyp is hard and thicker and although we may mistake the mass presenting at the os for a fruit sac, the two little points of thickness and hardness of the cervix should help to differentiate that case from inevitable abortion.

From a study of this case, bearing in mind the points

enumerated, I feel that we have in this woman's pelvis an infectious process, whether or not accompanying a fibroid uterus I do not know. I shall proceed to complete my diagnosis by means of a posterior vaginal section.

The uterus in this case is well forward, so far forward that the anterior lip of the cervix is on a level with the lower border of the symphysis pubis, a large mass posteriorly with a sharp border extending down in the tissues between vagina and rectum.

Operation: Posterior-Vaginal section is done in the usual manner and discloses a multi-locular abscess; the cavity on the patient's right side is the larger.

This is one of the several cases which I have seen in consultation or in hospitals that have been treated for typhoid fever—pelvic abscess. Many of them, I feel, have been appendix cases at the start. This gauze will be left in from ten to twelve days without any disturbance whatever, four pieces in the cul-de-sac, one in the vagina.

The mass has become considerably smaller, but has not entirely disappeared owing to a thickened wall boundary.

375 Grand Avenue.

PROBLEMS IN PSYCHIATRY AND PENOLOGY.*

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New York.

Little difficulty occurs in securing the commitment to the State Hospitals of the criminal insane or the law breakers who are manifestly insane and whose deviations from the normal standards of living are so marked as to be easily seen and appreciated, but the difficulty increases as we approach the shadowy region that marks the boundary between the manifestly insane on the one hand, and those whose actions give slight evidence of mental disease on the other.

It is frequently a very perplexing matter to determine whether a criminal who is constitutionally inferior, belongs in a prison or in a hospital. These individuals are usually, by reason of their mental unsoundness, habitual criminals. They possess, naturally, an unstable nervous organism which responds abnormally to external influences or stimuli. Their lack of stability is an inheritance, increased by disease, alcoholic stimulants, or the abuse of habit forming drugs.

Many of these constitutionally inferior types are exceedingly dangerous when at liberty, and under the stimulus of even a small amount of alcohol their homicidal tendencies are increased. When they are placed under restraint and live a well ordered life, free from excitement, indulgence in alcohol, licentiousness, etc., their apparent mental improvement is often quite remarkable. In many instances their delusions and hallucinations disappear, they regain control of their volitional mechanism, and are able to apply themselves more diligently to occupation than is possible outside of an institution. So long as they can be retained in custody under these favorable surroundings they do well, but when released they usually return to their former

* Read at the Second Annual Meeting of the American Association of Medical Jurisprudence, New York, May, 1914.

mode of life and criminal practices becoming a menace to the community.

Whether the reason for the seeming increase in the number of such criminals is because we more readily recognize the type, or because there is a real increase in their number, I do not feel at liberty to state. In any event, they constitute a large proportion of the recidivist criminal classes.

The genuine incorrigible is usually defective mentally. To a limited extent he is able to adjust himself to institutional discipline, although in some cases he is even then unable to exercise sufficient self-control when irritated, to refrain from committing assaults or homicidal attacks upon inmates and attendants.

As an example of constitutional inferiority with insanity, I may briefly cite the case of M. O. This patient went to school until thirteen years of age, during which time he frequently played truant. As he did not care for school, he worked for short periods, first as messenger boy, and later in a chair factory, as a driver and in a stone yard. At the age of sixteen he began to drink, and to associate with loafers. Arrest for fighting soon followed and he was sentenced for one month to the penitentiary.

A few months after his release he assaulted his father and was again sent to the "pen," this time, for eleven months. After expiration of his sentence he was arrested for disorderly conduct and sent to the workhouse for six months. Following this release he was once more arrested, this time for drunkenness and disorderly conduct, and confined in the Tombs for two weeks. Two weeks later he was again arrested for burglary and sentenced to Sing Sing Prison for thirty years. He was subsequently transferred to the Clinton State Prison where he did fairly well for nearly two years, when he received word of the death of his mother. Depressed by this information and the strict prison discipline, he stabbed a convict near him with a pair of shears, narrowly missing the jugular vein. This caused his transfer to the Auburn asylum in April, 1890.

On admission to the asylum, he was quiet and orderly and stated that he had assaulted the man at Clinton Prison because he was calling him names. He claimed that the convicts bothered him so that he could not sleep. A week after his admission to this institution he began to improve, ate and slept well, and looked on his ideas at Clinton as imaginary. This condition lasted about a month when again he became depressed, unsociable, and declined to be questioned.

In August he had improved to such an extent that he assisted with the ward work, and his periods of depression were less frequent. On September 28, 1891—about fifteen months after admission—he was transferred to Auburn Prison as recovered.

His conduct continued to be vicious, and some time later he stabbed a quiet inoffensive convict, who had never spoken to him. He had the delusion that this man had been annoying him for months and that he wounded him to protect himself; in consequence, on April 5, 1892, he was again sent to Auburn asylum as insane.

Upon his second admission to the hospital, he was in a state of dejection; saying he was ashamed to go back. He volunteered no remarks, and when addressed answered slowly, apparently absorbed in himself. He said that the convicts bothered him; that the keepers growled at him; that they were all down on him; that the man he stabbed had put rotten meat on his plate

and talked about him. Six months after admission he appeared mildly depressed; ordinarily pleasant when spoken to, though reticent about his past experiences.

During the following year his record shows that he maintained a sullen and surly attitude toward the physicians and attendants, but was cheerful with the patients. In 1895 the old hallucinations returned. This time he imagined that one of the attendants was talking about him at night, and that he could hear him through the ventilator. In June, 1896, his condition was much improved. The improvement continued and in February, 1897, he was returned to Sing Sing Prison as recovered. In December, 1898, he was pardoned. Six months later he tried to draw a revolver on a companion.

In November, 1899, less than one year after his pardon, he was returned to Matteawan Hospital for Insane criminals, having been indicted for murder in the first degree and adjudged insane.

On his third admission he was emaciated, dull and much depressed. He said he had no recollection of killing "S." He was suspicious, and very reticent. For a short time after admission he was apathetic, disinterested in things about him and did not associate with the other patients. Later he became brighter and entered into their games, but when questioned about his crime he immediately became nervous, his face flushed, and tremor of the hands, tongue and facial muscles became apparent. He still has periods of mental depression during which he is surly, sullen, irritable and very suspicious; he converses in a low tone, his facial expression is one of sadness, and he becomes very nervous when he thinks some one is observing him.

His life in the asylum to the present time shows attempts to escape, and assaults upon inmates, although a few months ago he stated that he regretted his past life and that he would be able to refrain from violence and drinking should he be discharged, but shortly thereafter he struck a patient.

Here then, we have before us the history of a man, who, when he appears before the commission, is able to talk rationally and connectedly, sits quietly in his chair, and is able to follow the course of the investigation, yet whose whole life has been filled with antisocial incidents. Owing to his defective nervous organism, and consequent lack of self-control, as evidenced by his early life and conduct while in prisons and asylums, and the marked susceptibility to intoxicants which this type exhibits, the commission concluded that M. O. was a case of constitutional inferiority and hence liable to attacks of excitement, during which acts of violence, including homicide are frequently committed; and that under slight provocation this man might commit an assault, perhaps of a fatal nature. Without carefully and fully considering the previous history of such cases it would be extremely difficult to form a correct opinion of their mental condition.

A study of these individuals is indicated not only because of the necessity of keeping them confined, but because of the danger attendant upon the discharge of such persons which so frequently occurs when brought before the usual jury upon writ of habeas corpus.

These cases constitute one of the real antisocial problems of to-day. They are sometimes found in the asylum, but more often in the prisons, where they ought never to be.

411 West End Ave.

In Europe tuberculosis causes greater ravages than all these other diseases put together.

RETRODISPLACEMENTS OF THE UTERUS; EMPYEMA IN CHILDHOOD; INFAN- TILE UMBILICAL HERNIA.

From the Surgical Clinic of

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Retrodisplacements of the Uterus.

History: Patient, female, aged thirty-six enters the hospital because of pelvic pain and discomfort. She was married at the age of twenty-five and has had three children. Her trouble began after the birth of the second child; since then she has suffered from a bearing down sensation in the pelvis during standing or walking. The pain is referred to the region of the sacrum and extends down the back of the thigh. Menstruation is regular but excessive and there is profuse leucorrhea. Patient is depressed and nervous and has frequent headaches in the occipital region.

Examination reveals a lacerated perineum, a unilateral tear in the cervix, and a retrodisplaced uterus.

Operation: We have already repaired the perineum, and we shall now open the abdomen for the purpose of correcting the backward displacement.

As we separate the abdominal from the pelvic viscera with laparotomy pads, we note that the fundus of the uterus instead of pointing toward the symphysis is lying in the sacral hollow; in other words the uterus is standing on its head. This pathological position is a rational explanation of the symptomatology—the pain in the back radiating to the thighs is caused by pressure of the uterus on the sacral plexus: the excessive menstruation and leucorrhea is due to the twisted pedicle which this extreme retroversion has produced—the blood supply of the uterus has been impaired; there is constant congestion of the uterine tissues, the effect of which you observe in the size of the uterus which is much larger than normal.

The question before us is what method shall we use to correct this retrodisplacement and permanently anchor this uterus in its normal position of anteversion.

There are a number of procedures the most popular of which seems to be the so-called "Webster-Baldy" operation, which consists in looping the round ligament behind the uterus. This is an excellent operation in selected cases; in small, freely moveable uteri it works well, but it should never be used in large congested uteri, because in looping the round ligament behind the uterus, the uterine end of the loop acts as a constricting band exercising its greatest force at the lateral border of the uterus—the point of greatest vascular activity, producing congestion, and in some cases subsequent uterine hemorrhage as a sequela of operation.

Now that is just what we don't want to do in this particular case. I have been in the habit of correcting the displacement of these large, congested uteri by detaching the round ligaments from their uterine attachment and anchoring them in a posterior position on the back of the uterus, thus forming a sling for the uterus which holds it securely in the corrected position, and in no way interferes with uterine circulation.

The procedure is simple—the uterine ends of the round ligaments are ligated and detached, and then drawn through the broad ligament and sutured to the posterior wall of the uterus. You observe in this patient the uterus held in the corrected position, the round ligaments now forming a posterior sling. This

operation is not only temporarily corrective, but it is permanently effective.

Remarks on Retrodisplacements of the Uterus.

Surgery of the female pelvis is distinctly complex, it rarely implies a single operation on a definitely diseased organ; more often it involves a series of operations upon an affected group of organs. In this series of operations the most frequent finale is some operative procedure for the normal reposition of the displaced uterus. Thus the surgery of retrodisplacement has developed a multiplicity of operations chiefly concerned in shortening the round ligaments, for the purpose of tilting the uterus forward into its normal position of anteversion.

The only standard by which to measure a displacement of the uterus is a correct appreciation of its normal position. Now the exact normal position of the uterus is difficult to define because the uterus is a very mobile organ. The uterus is slung in the folds of the broad ligament like a body in a hammock. Its direction varies with the position of the individual, and with the state of the bladder and rectum; hence the uterus has no absolutely fixed position. However, independent of the deviations which follow an empty or distended bladder, the uterus is normally maintained by its ligaments in a position of equilibrium and this position is one of anteversion; that is, the uterus lies on the posterior surface of the bladder, the fundus is directed forward, the cervix turned back toward the sacral hollow and its axis forms a right angle with the axis of the vagina (Fig 1.).



Fig. 1.—Note in the normal position the axis of the uterus forms a right-angle with the axis of the vagina.

It is important here to observe the function of the round ligament; for a correct conception of this function is the only rational basis upon which a true anatomic reconstruction of the round ligament can be founded. The round ligament does not support the uterus nor does it sustain the uterus in its anteversion. The round ligament merely serves to tilt the uterus forward so that intra-abdominal pressure falls upon its posterior



Fig. 2.—In the retroverted position the axis of the uterus becomes parallel with the axis of the vagina.

wall and maintains the stability of the uterus in its anteverted position. Were it not for this mechanical fact intra-abdominal pressure would act to destroy the ligamentous supports of the uterus, and force it into a state of chronic prolapse. Another point of considerable clinical significance is the observation that *uterine prolapse is only the terminal stage of an uninterrupted retrodisplacement*. An anteverted uterus can never be-



Fig. 3.—Note that uterine prolapse is only the terminal stage of an uninterrupted retrodisplacement.

come a prolapsed uterus for the obvious reason that the uterus in the forward position is at right angles to the vagina, (see Fig. 1.) and is maintained in this position by intraabdominal pressure. It is only when the uterus occupies the backward position and its axis becomes parallel with the axis of the vagina (Fig. 2.) and intraabdominal pressure ceases to be conservative by falling upon its posterior wall, but becomes destructive by acting upon the fundus, that the uterus gradually begins its descent which uninterrupted terminates in prolapse (Fig. 3.). Thus retrodisplacement is the first step in a prolapse and demands correction not always because of present disabilities but because of future contingencies.

It is obvious that from relaxed round ligaments to complete prolapse is but a mechanical feat in which the uterus traverses the arc of a circle in following the path of least resistance. For the round ligament is the single factor which converts the destructive force of intraabdominal pressure into one of conservation. It is therefore obvious that ante-positions of the uterus are not abnormal; for even pathological antelexion is not a malposition, it is a malformation—a malformation of the uterine canal, and must be regarded as a developmental defect of the uterus. It is therefore only the backward displacements that are of clinical significance and these let it be said, have a large share in pelvic disorders. Ten per cent. of pelvic surgery is complicated by retrodisplacements. Of these, two-thirds are found in married, and one-third in single women (Kelly). In married women it is easy to understand the vicious circle—how after childbirth, with the uterine ligaments relaxed, and the pelvic floor damaged, the uterus falls back into retroposition, and intraabdominal pressure acts directly on the fundus of a uterus unsupported either above or below.

In pelvic infections it is obvious that the maximum of inflammatory reaction is behind the uterus; for the *cul-de-sac of Douglas is the pathological pocket of the female pelvis*. Into this pouch is poured the product of infection. Here is the center of the pelvic conflagration, and after the fires of inflammation have burned out there is left the residue of adhesions which enmesh the uterus and imprison it in its malposition of retrodisplacement.

Regarding retrodisplacements in the nulliparous and the non-infected pelvis; we have observed that there are certain females whose viscera revert to the lower-type-viscera, with loose attachments, long mesenteries, relaxed ligaments, imperfect muscular support. The enteroptotic female is a uteroptotic female—the same lack of support in the abdominal viscera is found in the pelvic viscera, and it is in this type of nulliparous female that there is so frequently found the retrodisplacements and prolapsed pelvic organs. These conditions are largely due to developmental defects, for the enteroptotic or uteroptotic woman is born not made.

The operative treatment of retrodisplacements has afforded a fine field for the display of surgical ingenuity. These various procedures are connected with the names of Alexander, Gilliam, Dudley, Mann, Kelly, Webster and Baldy. The fact that the round ligament is both an intra- and an inter-abdominal structure has connected it with feats of anatomic jugglery of which few ligaments of the body can boast; after all they represent but steps in the pathway of progress, and the goal of truth is reached only by the ladder of discarded errors.

As a sound surgical principle it may be laid down that no operation is satisfactory that attempts to cure one pathological condition by producing another. To be specific; the cure of retrodisplacements by ventrofixation is objectionable since the operation carries in its wake new pathologic factors more serious than the condition for which the operation was originally intended. To secure the uterus to the abdominal wall by adhesions means subsequent lengthened adhesions about which the intestines may become strangulated. The Gilliam operation is criticised because it divides the anterior portion of the pelvis into pockets in which the bowel may be caught and obstructed. The Webster-Baldy operation is excellent in selected cases but it may be objectionable because in looping the round ligament behind the uterus, the uterine end of the loop may act as a constricting band exercising its greatest force at the lateral border of the uterus—the point of greatest vascular activity, producing congestion and in some cases subsequent uterine hemorrhage as a sequel of operation.

We have found that in correcting retrodisplacements of the uterus it is wiser to select the operation best adapted to the circumstances of the case, rather than to be hampered by a blind adherence to one procedure.

Empyema in Childhood.

History: Patient, girl, three years old, enters the hospital because of pus in the thoracic cavity. Three weeks ago the family physician was called to treat the patient for a left broncho-pneumonia. The condition however did not respond promptly to treatment and an unresolved pneumonia was suspected. The physician finally used the aspirating syringe and demonstrated pus in the thoracic cavity on the left side. On entering the hospital, patient's temperature is 103, pulse 120, respiration 60.

On inspection it is evident that the intercostal spaces on the left side are obliterated, and there is a noticeable bulging of the affected side. The apex beat is also displaced toward the right side. There is marked dyspnea and debility.

Comment: Empyema is very frequent in children and presents special points of interest which merit careful consideration.

First: *Empyema is usually met with in very young children* (before the age of five). It is even found in the new-born where it is rarely diagnosticated and is revealed only by autopsy.

Second: *Empyema in the child is usually the result of a pneumococcus infection.* It is true that it may be the result of a tuberculous, a staphylococcus or streptococcus invasion, but the pneumococcus variety following a lobar or broncho-pneumonia is typical of childhood.

Third: Empyema in the child is usually an acute process. We rarely encounter the chronic type. The thorax of the child is supple and elastic, there is a tendency for the parietal and visceral pleura to approximate which opposes the formation of a suppurating cavity with rigid walls.

Diagnosis: There is one caution to be observed. *In every lingering pneumonia of a child always suspect empyema.* When in doubt use an aspirating syringe. The antiseptic puncture will eliminate all doubts.

In this case before you, the physician at first suspected an unresolved pneumonia but on resorting to an aspirating syringe he demonstrated the presence of pus.

Treatment: Early operative intervention is the

only rational procedure in order to prevent septic poisoning and secondary deformities. A high mortality is the penalty of procrastination, or at best a crippled lung, or contraction of the chest which results in a pronounced scoliosis.

The management of these cases of empyema in children requires nice surgical discrimination. It is quite a different proposition from the treatment of the adult. We always insist that the pus shall not be evacuated too rapidly, or it may result fatally because of the sudden change in intrapleural pressure—especially empyemas of the left side with a displaced heart. This patient came into the hospital three days ago—the respirations at that time were 60; there was great dyspnea; surely the indications were clearly in favor of evacuation of the pus to relieve the compressed lung and the displaced heart. *But not sudden evacuation;* not an opening into the pleural cavity and insertion of a drainage tube. We never advise this procedure in children. *It is always wiser to gradually relieve the intrapleural pressure* and when this has been substantially reduced, then we may safely open the pleural cavity and drain.

Method: When this patient came into the hospital we immediately aspirated the pleural cavity and withdrew sixty cc. of pus; this relieved the acute symptoms: The following day we withdrew one hundred cc., and the third day sixty cc.

The respirations fell twenty points because the lung has been relieved of the pressure, and the heart is not so markedly displaced.

The patient is now ready to safely undergo the further operation of opening the pleural cavity and inserting a drainage tube. In doing this it is not necessary to run the risk of general anesthesia. Have the child held by the nurse in the upright posture. Inject novocaine into the tissues and make the incision through the sixth or seventh intercostal space in the posterior axillary line. As you observe it takes but a few seconds to enter the pleural cavity. I regulate the flow of pus by placing my finger over the opening. Remember the pus must be removed slowly so that the intrathoracic viscera may adjust themselves to the new conditions.

Sudden release of intrapleural pressure is always dangerous and may be fatal.

Shall we irrigate the cavity? Emphatically No! Irrigation is not only superfluous, it is useless and often dangerous.

Shall we resect a rib? In young children resection of a rib is unnecessary. The thorax of the child is elastic, the intercostal spaces wide, and free drainage may be obtained without the additional trauma which resection of a rib implies.

We now insert a rubber drainage tube into the wound and securely fasten it by suturing it to the adjacent skin to prevent it from being sucked into the pleural cavity—an accident not infrequent and always disagreeable (Fig. 4.).

Don't rely on a safety pin alone, always supplement the pin by a suture.

The operation is completed by applying a large gauze dressing to absorb the discharge. Give orders to have the dressings changed as frequently as necessary to insure cleanliness.

After-Treatment: The after-treatment in these cases is a very important adjunct to promote expansion of the lung, to prevent thoracic deformities and subsequent scoliosis.

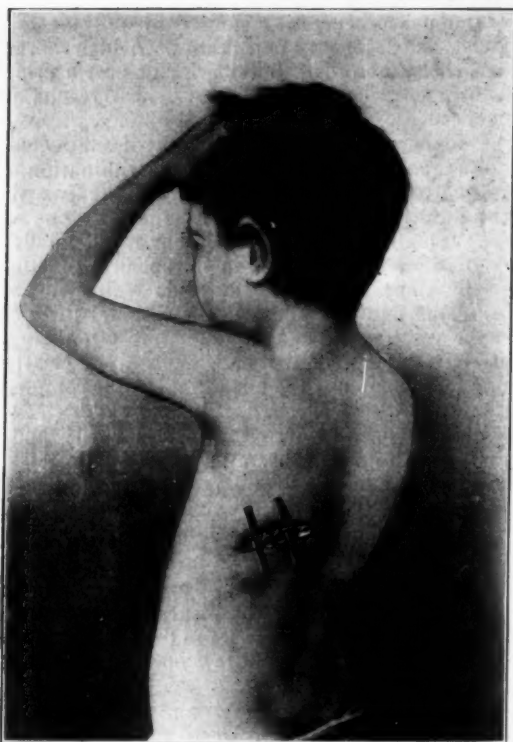


Fig. 4.—Drainage tubes secured in wound after opening pleural cavity.

If the child is old enough, breathing and gymnastic exercises should be begun early, and even some thoracic brace may be necessary to hold the trunk in a normal erect position.

Infantile Umbilical Hernia.

History: Patient, girl, four weeks old is brought to the hospital because the mother has noticed a slight bulging at the naval which becomes tense when the child cries or strains. There is no general disturbance except perhaps a little colic and digestive disorder.

Comment: Umbilical hernia is very common in childhood because it will be recalled that the umbilicus is a potential center of congenital defects. The umbilicus is an abdominal cicatrix which marks the site of the umbilical ring through which the placental vessels pass in intrauterine life.

It is well to note that Infantile Umbilical Hernia may present under two aspects.

First: It may present at birth and occupy the cord at its site of implantation. These hernias are frequently so small that they pass unrecognized and may be compromised in ligating the cord.

Hence, in tying off the umbilical cord, the presence of gut should first be excluded, or it may be caught in the ligature.

Second: The hernia may occur a few days or a few weeks after birth, before the cicatrix has firmly closed the ring.

Excessive coughing, crying, straining imposed by constipation, or phimosis, in conjunction with a weakened ring is sufficient to bring about this condition.

Treatment: The first indication in the treatment of infantile umbilical hernia is the elimination of all factors which are found to be causing increased intra-abdominal pressure; such as disturbance of digestion, difficult micturition, constipation, phimosis, and coughing.

In the management of infantile umbilical hernia keep in mind the fact that the tendency of these hernias is toward spontaneous cure, provided reduction is maintained continuously.

Reduction is of little value unless retention is complete and continuous. A single protrusion may destroy the results of several weeks of retention.

Hence, the fundamental principle of treatment is reduction and retention. The reduction should be complete, and the retention continuous.

To accomplish this either palliative or operative measures may be employed. Since the tendency of these hernias is toward spontaneous cure, palliative measures should be our first recourse.

Rule: Use palliative measures for six months—if without results, consider radical operation.

For this patient we shall use the palliative treatment, and while its application is simple, there are certain principles which must be recognized to make it effective.

Palliative Treatment: The object of this treatment is to assist nature in her efforts toward a spontaneous cure. All that is necessary is to continuously maintain reduction that nothing may interfere with the closure of the ring.

The simplest and most effective method is to approximate the edges of the ring by the proper application of adhesive straps to the abdomen. The application of padded buttons and coins over the ring is unnecessary and often does more harm than good.

Method: Prepare two strips of zinc oxide adhesive plaster two and a half inches wide, and long enough to reach well around toward the back of the patient. After careful cleansing of the umbilicus, reduce the contents of the hernia, and place over the ring a small piece of absorbent cotton which has been well powdered, —the purpose of this cotton is simply to prevent excoriation of the folds of the skin.

While the umbilicus is pushed in the adhesive strips are applied obliquely over the abdomen so that they cross at the umbilicus; as the strips are brought across, the skin along the median line is folded inward so as to overlap the ring and thus form an excellent support for maintaining reduction (Fig 5).

To be successful this treatment must be continuous. It must be worn day and night. The failures are usually in children deprived of vigilant and intelligent nursing. Excoriations of the skin are to be prevented by frequent bathing and sponging with alcohol (half-strength), special care being given to the folds of the skin which overlap the ring. A well powdered piece of absorbent cotton frequently changed will usually prevent irritation.

If the tender skin will not tolerate adhesive strips, then use a carefully applied binder or a rubber bandage.

Caution: Whenever the adhesive strips are removed, or the binder changed for purposes of cleanliness, always maintain the hernia reduced by pressure with the fingers until new retention straps are applied. A single protrusion will destroy what it has taken weeks to accomplish.

394 Clinton Avenue.

In Fishberg's series of 692 children under 15 years of age, examined medically and by the von Pirquet test, belonging to 317 families where one or both parents were tuberculous and had applied for relief to the United Hebrew Charities, New York, in March, April and May, 1913, 67.23 per cent., or 465, were found to be tuberculous.

STRICTURE OF THE URETHRA. II.*

HENRY H. MORTON, M. D.

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES IN THE LONG ISLAND COLLEGE HOSPITAL; GENITO-URINARY SURGEON TO LONG ISLAND COLLEGE AND KINGS COUNTY HOSPITALS AND THE POLHEMUS MEMORIAL CLINIC, ETC.

Brooklyn, N. Y.

If Napoleon Bonaparte had not been suffering from a stricture of the urethra and its consequences he would probably have won the battle of Waterloo and the map of Europe would have been entirely different from the one that we see in the atlases of today.

Napoleon began to have difficulty in urinating during the Russian campaign in 1812. At that time such conditions were not so clearly understood and his urinary difficulty was supposed to be due to the effect of a cold in causing a recession of his exzematous eruption to the internal organs. His dysuria gradually became worse and continued through the rest of his life. While transacting the most important business he was often obliged to retire to empty his bladder. While on his campaigns in the field he acquired the habit of leaning his head against a tree or a wall and in that position, with difficulty and pain, forcing out his urine. He seems to have suffered severely. He once remarked to an attendant, "This is my weak part. It is this which will ultimately cause my death."

These are all symptoms of a man who suffers from some organic obstruction to the free outflow of urine and may be caused by an enlarged prostate, a stone in the bladder or a stricture of the urethra. At his age he would not have suffered from senile hypertrophy of the prostate and although nine years afterwards, at his autopsy, a few small calculi were found in the bladder, if they had been there for nine years they would have been very large. There can be no doubt that his dysuria was caused by a contracted stricture complicated with cystitis. As he was noted for his prowess as a "swordsmen," there is no doubt that his numerous gonorrheas had had the usual effect in causing the strictures. At his autopsy the urethra was not examined, but the bladder was opened. It was very much contracted and contained a few small calculi. The kidneys were looked at, but not opened. The left kidney was narrower than the right and lay turned over and adherent to the sides of the vertebrae. It is fair to assume that it was a kidney contracted by a chronic nephritis, although at that time nothing was known of the relations of nephritis, albuminuria and uremic poisoning.

Four years before his death, while his general vigor was still fairly good, Napoleon began to have dropsical swelling of the feet and legs and as his heart was not diseased, he probably had a chronic nephritis. The nephritis and uremic poisoning accompanying it, no doubt impaired the action of the brain and caused some of the defects of skill in battle noted by Field Marshal Woolsey. Woolsey states that at the battle of Waterloo Napoleon suffered pain in riding and that he had a table set in the open air for receiving dispatches and issuing orders. There he sat for hours, much of the time asleep, leaning his head on his arms. When it became necessary for him to leave the field after the battle was lost he was so drowsy that it was difficult to get him on his horse. All of his intimate associates agree that he was unusually abstemious in drinking and he was not in the habit of taking opium, so that his drowsiness did not arise from these causes. The truth is probably

this: about a hundred and ten days before the battle of Waterloo he had landed from the Island of Elba and in twenty days of intense labor and sleepless energy he had marched to Paris, overthrown the king and taken again his imperial throne. There he worked like a galley slave for eighty-four days to re-organize the empire, put down royalist uprisings, gather twenty millions of dollars in money for his campaign and march his troops to Belgium. All this tremendous amount of labor he accomplished while suffering with a genito-urinary disease of an exhausting character. He must have arrived in Belgium exhausted mentally and physically and on the verge of collapse from overwork and loss of sleep. It is not related that his stricture ever received surgical attention and yet it should have, for at that time the use of wax bougies for that purpose was already well known, but, like so many of our modern patients, the pain and discomfort of dilating a stricture with instruments probably caused him to refuse treatment and the result was the loss of an empire.*

With the interesting history of this celebrated patient in mind let us now take up what is known today upon the subject of organic stricture.

Stricture may be defined as a deposit of newly formed connective tissue underneath the mucous membrane of the urethra which interferes with its dilatibility. The fibrous tissue contracts and causes a narrowing of the urethral calibre.

As to its etiology, there are only two causes, the more common of which is inflammation due to gonorrhea, and a more infrequent cause is traumatism caused by a laceration or rupture of the urethra from direct violence. An extensive laceration of the urethra heals by cellular infiltration, of which a considerable amount is thrown out, and the substance becomes converted into connective tissue which is notably dense and tough.

For the pathology of stricture as caused by gonorrhea we must revert again to a study of the processes taking place in a chronic gonorrheal inflammation. The submucous tissue of the urethra is the seat of an infiltration of small round cells. If this inflammation is entirely absorbed, no stricture forms; but if it is not absorbed, the infiltrating cells become transformed into spindle cells and ultimately into a dense, retracting connective tissue known as scar tissue. The transformation is slow, requiring one or two years before the infiltration becomes organized. The changes in the urethra resulting from contraction of the new fibrous tissue have been frequently studied at the autopsy table. Morgagni's crypts and Littre's glands are obliterated by the contraction of the fibrous tissue and the calibre of the urethra is narrowed as though a string were tied around it. The stricture itself, on the urethral side, is covered with many layers of squamous epithelium which continue to desquamate for years, causing, in some cases, filaments in the urine which persist through life.

Clinically, we recognize two varieties of organic stricture:—First, the soft or recent form, in which the infiltration is recent and the small cells do not become organized; and, secondly, the cicatricial or inodular, in which the urethra is surrounded by a ring of fibrous tissue formed by the transformation of a soft infiltration into contracting connective tissue. As the stricture grows older it becomes tougher, denser and more inelastic.

* Clinical lecture at Long Island College, Brooklyn.

* From Andrews' article in *Journal A. M. A.*, 1895.

Strictures present themselves in various forms and they are described as the linear, which consists of a fine band of fibers; the annular, in which the band of fibers is broader and forms a ring; and the tortuous, which is composed of a heavy irregular mass of scar tissue, causing more or less distortion and narrowing of the urethra. As to the number, traumatic strictures are single and always occur at the point of rupture of the canal, while those due to gonorrhea are multiple and two or three exist at the same time. As to the location, Sir Henry Thompson examined 320 specimens. In 215 he found strictures located in the bulbo-membranous portion; and in 105 the first five inches of the canal were affected.

The prostatic urethra is never strictured except as the result of traumatism due to the incision for lithotomy.

More important indeed than the stricture itself are the changes which take place behind it. As the free outflow of urine is obstructed, the urethra becomes dilated and pouch-like, there is a loss of elasticity from the frequent stretching of the urethra at each act of urination and the pouch retains a drop of urine which decomposes and irritates the delicate mucous membrane, causing a chronic inflammation, which shows itself by the appearance of a gleet discharge from the meatus. Prolonged inflammation and stagnation of urine often lead to an ulceration of the mucous membrane. When the ulceration is small a few drops of urine only escape into the issues, causing a small abscess, which opens externally, thus producing a urethral fistula. When the ulceration is large, however, a considerable quantity of urine escapes, giving rise to the condition known as extravasation of urine, or, as the

Let us now consider the symptoms to which a stricture gives rise. The patient's attention is first attracted to his condition by the necessity for frequent urination. This in the early stages of the stricture depends usually upon the congestion of the posterior urethra and an exaggeration of its natural irritability. Later on, after cystitis is established, it is accounted for by the inflammation of the bladder, and in the last stages, when the bladder has become atonied and filled with residual urine, the dribbling urination is due to the incontinence of the sphincter or an over-distended bladder and is sometimes described as paradoxical ischuria.

Another symptom which attracts the patient's attention to his urethral canal in the early stages is the dribbling after urination. A few drops of urine are retained in the pouch behind the stricture and escape later, after the patient supposes he is entirely through with the act of urination. The stream itself is usually distorted, having a corkscrew twist, or a split, and is smaller than natural. The patient requires a longer time to urinate than a man without an impediment in his urethra.

A constant accompaniment of stricture is a gleet discharge from the meatus and the shreds in the urine are always constant. The gleet discharge is caused by a catarrhal inflammation of the mucous membrane behind the stricture as a result of the irritation of the decomposing urine.

Retention of urine is liable to occur in every case of stricture. It may come on suddenly as a result of acute congestion and swelling of the mucous membrane and is excited by exposure to the cold, or wet, and alcoholic or sexual excesses. Later in the disease it is due to the direct obstruction of the outflow of



French graphically describe it, "the patient 'pisses' into his own tissues."

Let us now look back for a moment at the changes in the bladder and kidneys. The increased effort on the part of the bladder to overcome the obstruction in the urethra causes a hypertrophy of the bladder walls and the bunches of muscle fibres project into its cavity and diminish its elasticity. Exceptionally the walls become thin and atrophied, causing a vesical atony. As the atony increases residual urine accumulates and increases as the age of the patient advances. Residual urine is a constant phenomenon and is present in 93 per cent. of cases.

One of the most serious results of stricture is the accumulation of residual urine and this is indirectly the cause of death in nearly every case which is untreated. Let me explain why this is so. The effect of the stricture is to cause damming back of the urine upon the kidneys and setting up disease of these important organs. The ureters become distended and dilated from the backward pressure and the muscular efforts of the bladder during urination. Sac-like dilations form in them and pyelitis is the immediate result. The inflammation extends from the pelvis of the kidney to its parenchyma and pyelitis or pyelonephritis always occurs sooner or later.

It is important to bear in mind the affection of the kidneys when the question as to operation in stricture is raised. It is always necessary to remember the liability of the kidneys being infected in making a prognosis before operating on every case of stricture.

the urine through the slowly-contracting stricture.

Pain in the urethra is inconstant, neuralgic in character and often is never felt at all.

Interference with coitus is frequently the result of a stricture, especially when located in the deeper portions of the urethra. The erections are feeble; the ejaculation is premature from the congestion and irritability of the posterior urethra. Sometimes the semen is retained behind the stricture until the engorgement of the erection subsides, and then it oozes out from the meatus; but from a mere taking of the history of a patient we can never make a diagnosis of stricture. We can only assume that there is some obstruction to the free outflow of the urine.

For purposes of an examination the passage of a steel sound is too inexact a method to be of much practical use. The steel sound will merely demonstrate an obstruction in the case of a tight stricture, but with a stricture of wide calibre it will pass through without disclosing its presence. We depend for our examinations chiefly on the flexible bulbous bougie. With this delicate instrument it is possible to detect wide linear strictures, or even soft infiltrations, with great positiveness.

Let me demonstrate the technic upon this patient who is lying on the table. I select a bulbous bougie of about 26 or 28, pass it down through the urethra for about six inches until I feel the resistance of the cut-off muscle, which grasps it; I pass it along for three-quarters of an inch, when it enters the posterior urethra, where it becomes freely movable. As I advance and

reach the sphincter of the bladder I notice a slight grasping. Now it is in the bladder and moves freely.

For the purpose of detecting a stricture, however, we must withdraw the instrument, when, if a stricture is present, we will notice a sensation of jolting or roughness as the head impinges against the stricture bands. The healthy mucous membrane feels soft and velvety and the bulb slides over it, but when it strikes the strictured point there is a sensation as though we had impinged against a tight fiddle string. I now begin to withdraw the bulbous bougie. I note the slight grasping as it passes through the sphincter of the bladder. Now it moves freely in the posterior urethra; as I draw it forward it is gently grasped by the cut-off muscle and I can feel the sensation of resistance as it passes through the membranous urethra. To the inexperienced hand this grasping of the cut-off muscle surrounding the membranous urethra may easily be mistaken for a stricture of the deep urethra, but with a little experience the sensation of muscular resistance and the hard, roughened sensation of the stricture band should be easily differentiated. I withdraw the bulb through the bulbous urethra until I come to a point four inches from the meatus. Here I find a distinct jolting sensation as the bulbous bougie springs over two or three fine, linear bands. I pass the bulb backwards and forwards, getting the jolting sensation each time. This enables me to diagnose two or three fine, linear strictures of large calibre situated at a point four inches from the meatus.

If we cannot get a full-calibred bulb through the meatus we should not hesitate to do the simple operation of meatomy. It is much better to enlarge the opening of a narrow meatus than to fail to find a stricture because the meatus presents us from introducing a bulb large enough to disclose its presence.

The metal bulb is less useful than the flexible gum elastic instrument which I have just shown you. The smooth and polished surface of the metal bulb does not hold on the roughnesses and slides over them without disclosing their presence.

In the earlier days of genito-urinary work the Otis urethrometer was a favorite instrument for diagnosis, but it has now been almost entirely displaced in my hands by the flexible bulbous bougie. The chief use of the urethrometer is to measure the calibre of the stricture and determine its dilatability. It has, however, the advantage that when closed it will slip through a narrow meatus and can be expanded behind the stricture, thus avoiding the necessity of a meatotomy. In very tight strictures which are so close as to prevent the passage of a bulbous bougie, we can have recourse to whalebone filiform guides. So long as urine flows out a stricture can never be impassable, although it may be difficult to enter because of its fine, narrow lumen or an eccentric opening. To find the opening in a stricture six or eight guides should be passed down, one after the other, and held by an assistant on the face of the stricture. Each one should be manipulated in turn by the surgeon until it slips through. In the few instances where I have failed to get a guide through a stricture, I have passed an endoscopic tube down to the stricture, seen the opening through it and passed a guide down under the guidance of the eye.

If the guide is introduced with great difficulty it is better to tie it in and leave it there for its effect in continuous dilatation, or for immediate operation.

32 Schermerhorn Street.

THE VALUE OF LIP-READING.

HAROLD HAYS, M. D., F. A. C. S.,

New York.

The physician who sees a great many cases of progressive deafness is often placed in a position where he feels that something must be done immediately to improve the mental condition of his patient before he begins treatment. The psychology of deafness is a vast problem and there is no doubt in my mind that many persons thus afflicted do not use the little hearing they have because they feel that it is not worth while to strain their nervous system to the point where it is possible for them to understand what is being said to them.

I believe that the otologist can accomplish a great deal more with many of his deaf patients if he insists that they learn lip-reading at the same time that they are taking their treatment or before they undertake treatment. Unless one is placed in a position where he comes in contact with many lip-readers he cannot appreciate the great benefit of lip-reading. When it becomes an effort to hear, when the nervous system has to be kept at the greatest tension all the time in order to understand what is being said, the nerves finally wear out and the patient lapses into a state of semi-lethargy. Once a person is taught to read the lips by the scientific method advocated by Nitchie, Wright, and others, the horizon clears and he again feels that he is a responsible individual, who counts in the affairs of men.

There is a play called "The Silent Voice." Here is portrayed a wealthy musician who becomes deaf and immediately drops all his activities and becomes the victim of his inner self. He is finally taught to read the lips and discovers that through a field glass he can understand what is being said by individuals in the little park near his home. He notes their joys and woes and the man becomes God, helping others in their troubles and increasing their happiness in every way he can. From a scoffer of religion he becomes an adherent of the Faith, not only making himself happier but increasing the happiness of those around him. No finer example of the value of lip-reading can be given than in this play, which unfortunately will never become popular on account of its morbid theme.

The schools for lip-reading managed by competent men and women are doing a great work, which can be appreciated by the deaf only when they are made to understand that the deaf man substitutes lip-reading for a defective ear in the same manner as the blind man educates his fingers to take the place of his eyes.

A few years ago a woman sat through one of the meetings at the New York Academy of Medicine—a meeting which dealt with the psychology of deafness. When the meeting was over she was asked to express her views, and she told how she had gradually become very deaf until she became hopelessly despondent. One day she heard of the value of lip-reading and decided to take a course. She has now learned to read the lips perfectly and as a result has been able to hear better—in other words she is more alert, her nervous system has returned to its normal and certain impulses which did not reach the auditory nerves for years were now being felt until the association of reading the lips and hearing spoken words was so close that it was impossible for her to say definitely that she did not hear every word that was being said to her.

11 West 81st Street.

Telegony Redivivus.

To the Editor of THE MEDICAL TIMES:

Permit me to say a word about your comments on an article by Dr. Duncan, which appeared in the *New York Medical Journal* under the title "For Better, For Worse." I was very much surprised that the *Journal* should be caught napping and permit such "hundred-year-old" stuff to come before its readers (of which I am one,) and I am also surprised that the editor of the *MEDICAL TIMES* should comment favorably thereon.

Dr. Duncan's entire article is based on the old theory of telegony, which was exploded and thrown into the discard before Dr. Duncan graduated. Here is what Smith's Veterinary Physiology says about telegony: "Telegony is the supposed influence of a male, by whom a female has previously conceived, on her subsequent offspring by another male. For generations this supposed influence was the dread of breeders. It possessed no physiological explanation, and was finally conclusively shown by Cossar Ewart to be without a shadow of foundation." Along veterinary lines such theories as this one are easily proven or disproven. This is one which was disproven.

It is indeed to be regretted that editors of popular medical journals should be instrumental in again bringing forth old, disproven and decayed theories.

In my opinion, these editors owe their readers an apology. As staff editor of the *American Journal of Veterinary Medicine*, I took it upon myself to comment unfavorably on the article in question, under the caption "Telegony Revived."

Journals of medicine could profit by taking on their staff a veterinary "censor," but, of course, that could hardly be expected.

MART R. STEFFEN, M. D. C. V. S.

Brillion, Wis., March 30, 1915.

We were not aware that such dogmatic views on this subject were held to-day, and were influenced in our remarks by the opinions of Darwin, W. B. Carpenter, G. J. Romanes, Agassiz, and, if our recollection serves us well, Herbert Spencer. Yes, when we come to think of it, Spencer did declare that he was satisfied with the evidence he had examined. August Weismann did not deny the possibility of offspring "throwing back" to a previous mate, and admitted that the widespread belief with respect to this matter may be justifiable and founded on fact. We now find, however, that Stettogast, Nathusius and Kühn teach what our correspondent declares to be the truth.

We wish to say this, however. The MISCELLANY column is hospitable to new thought and light on old problems and even "discarded" theories. Mendelism fell into the discard for a number of years, to the shame of science. Our esteemed correspondent would seem to counsel ultraconservatism in medical journalism. In our judgment progress does not lie that way. The *MEDICAL TIMES* is a forum for medical thought, not less than a repository of "authoritative" texts. A progressive journal may be conceived of as a sort of scientific palimpsest. Who knows which of our most cherished doctrines may have to be erased and written over? Certainly we must rid ourselves of static conceptions. Slavish worship of Galen is not the mark of the modern thinker. We welcome bold speculations and researches that threaten prevailing dogmas. We are afraid of nothing that thought may discover for us, and we are drawn to the man who defies the oligarchies which would standardize us. The star truth is still cloud-

veiled. The star dust that we sometimes think we have crystallized too often turns out to be dross. The *MEDICAL TIMES* opens its columns to every Carlos Finlay and to every Semmelweis and cares naught for consequent detraction. When a medical journal ceases to fulfil this function it ceases to be a medical journal and ought to be proscribed by intelligent subscribers. If that way lies journalistic death we shall cheerfully order our grave clothes, but it is our belief that the course pursued in this particular matter by the *New York Medical Journal* and by the *MEDICAL TIMES* is a course that has the endorsement of the best element in the profession.

The Wassermann Reaction.

To the Editor of THE MEDICAL TIMES:

In reading to-day in your April issue the article on syphilis written by Dr. Schaffner, I was struck by a remark he makes which I feel may be very easily and unfortunately misconstrued.

In discussing the Wassermann reaction as a diagnostic test for syphilis he says, "The Wassermann reaction determines the presence or absence of syphilitic antibodies in a suspected blood serum. In this climate, practically speaking, we have no disease other than syphilis which will give a positive reaction. So it can be safely stated that a positive reaction means syphilis; —" Upon reading this one might fairly infer that a positive Wassermann, irrespective of other factors such as the history, clinical findings, etc., means syphilis, whereas many of us know that such is not the case. Dr. Schaffner is no doubt fully aware of this as he says in the earlier part of his article, referring to the work of Metchnikoff, Schaudin and Wassermann, "These three discoveries together with our clinical knowledge have placed the diagnosis of syphilis on a sure foundation" thus showing that he does not consider a positive Wassermann alone as diagnosing syphilis but that it is to be considered in conjunction with other equally or more important data.

Unfortunately there are in this country at this time thousands of physicians who do not understand this and who have firmly rooted in their minds the belief that a positive Wassermann reported from a laboratory indicates syphilis and his phraseology therefore under these circumstances is rather unfortunate as tending to support this erroneous idea.

A positive serum Wassermann, in my estimation, does not mean syphilis unless we have either a history or symptomatology (past or present) indicative of syphilis, or, in the absence of any such history or symptomatology repeated positive reports from a reliable laboratory and preferably from various reliable laboratories. In either case we may safely say, except under very exceptional circumstances, that the patient has syphilis. In nervous syphilis the serology of the cerebro-spinal fluid would of course materially influence us in our diagnosis.

In closing, in order to emphasize the fact that one cannot diagnose syphilis on a single report of a positive Wassermann, I would recommend to anyone who doubts this the perusal of Dr. W. A. Pusey's letter in the *Journal of the American Medical Association* for November 22nd, 1913, in which he cites the sort of case which reveals the diagnostic and therapeutic pitfalls which beset the path of the doctor who does not realize the fallibility of the Wassermann reaction and the tremendous social disaster which ignorance of this fact may inflict on innocent individuals.

J. L. JOUGHIN, M. D.

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Hospital Triumphs.

Two matters of especial medico-sociological interest which have fixed our attention are, first, the rapid healing of corneal ulcers in children when they are taken from bad home conditions and properly fed and cared for in an eye hospital, their frequent recurrence when the children are sent home, and repeated cure by the hospital; and second, the remarkable betterment in general health observed in gynecological cases of most serious nature after operation and a month's rest and care. Many of these women, through drudgery and domestic care of all sorts, have been in poor health for years before overtaken by, for example, acute tubal disease. The month or more in hospital, even after major surgery, effects wonderful transformations. These two types of cases illustrate very well both sociological evils and the efficacy and beneficence of our hospital work. It is not alone the heart cases which sorely need simple rest, and they are not the only striking instances of hospital successes.

What Next?

Assembly Bill No. 671, introduced by Mr. Bloch, forbids that a physician dispense any medicine until after he has first made a physical examination of the patient.

Aside from the loose language of the bill (who is to judge what a "physical examination" is?) such a law would be a piece of unwarranted interference with the practitioner.

We must see to it that this kind of fool legislation is promptly killed.

We cannot prevent the election of foolish legislators,

but it is certainly up to us to safeguard ourselves effectually against the dervishes who are at perfect liberty to introduce burlesque bills.

There is hardly any limit to the possible proposals that may be made at Albany looking to idiotic regulation of the practice of medicine. It would be easy to suggest in a facetious vein many such proposals for the benefit of the Salons who are attempting to direct professional affairs, but we forbear. There would be real danger of the Blochs taking us seriously.

There is room for sane medical legislation, but there appears to be no hope of enacting that which is really required in this, the silly age of medicine.

The profession has simply got to wake up and assert whatever vitality is in it.

In Praise of the Charities Department.

The work now being done by the Charities Department in minimizing the abuse of medical charity has received scant recognition from the profession, if indeed it is not largely oblivious to the facts. A large field force is now engaged in investigating the social and economic status of every hospital patient submitted as a proposed public charge. So far as hospital cases are concerned practically no abuses are now possible. This is a great achievement. It is to be hoped that an equally thorough-going system will yet be elaborated in the matter of the dispensary evil.

The Department also maintains a staff of eight physicians, whose duty it is to cover all the private hospitals of the city and disapprove as public charge cases which could, without undue hardship, have gone to the municipal hospitals. They also render a useful service in investigating the physical and mental condition of institutional children who are wards of the city.

It gives us pleasure to call attention to the excellent medical and general administration of the Department as at present conducted, with which we are intimately familiar. The service it is rendering the profession and the public calls for special recognition and commendation.

The Economic Strain.

It would be interesting to know, in view of the serious economic conditions confronting the medical profession, what proportion of the profession are finding it necessary to look to other things than medical practice for a livelihood. We know in a general way that many physicians, thoroughly trained and competent in their science and art, and possessed of great personal merit, are compelled to resort to various expedients to add to their incomes. It is unnecessary to particularize; the general facts are fairly familiar. What proportion of men are able to depend exclusively upon their earnings in practice? We shall not hazard a guess, but hope to see the data collected.

There was a time when men not fitted for the practice of medicine found their way into other callings and gave up the profession altogether, often to win distinction in some other service. But now the best of our men are dividing their energies unfortunately, loath to give up altogether.

We must not forget, however, that other than medical men are put to it in these days, and are similarly dividing their energies. We view the subject from a too narrow angle, and fancy that our problems are special and peculiar.

So far as overcrowding is concerned, doesn't the same thing hold true of brokers, insurance men, real

estate operators, lawyers, engineers and manufacturers? So far as bad economic conditions are concerned, isn't the business world in general up against it, "psychologically," at any rate?

We know a practising lawyer who is also a letter carrier. Probably for every physician who at the present time is dividing his energies a match can be found in other high class lines of work, considered proportionately.

And the worst is yet to come.

A Defect in Our Hospital System.

The mere fact that a patient is in sore need of hospital care and treatment does not always, as it should, insure admission into a private (*quasi*-public) hospital. The patients of the average general hospital in New York City are roughly divisible into those whom we call strictly private, and those whom we call public. Not all of the latter are paid for by the City, since if not emergent they are not regarded by the municipal authorities as charges against the public treasury, unless cared for in a hospital conducted by the municipality itself. Despite the most liberal interpretation and application of this rule by the Charities Department a large number of poor patients must be, if admitted to a private hospital at all, beneficiaries of the institution which takes them in. It is easy to see that some hospitals are circumspect about admitting cases for whom they can expect no pay from the city. Every physician has experienced the difficulty of getting a certain class of patients into private hospitals. This spirit of circumspection appears to be least evident in the case of the institutions conducted by sisterhoods. Charity in the red-tapeless sense is still the main thing with them. It is to be regretted that all the hospitals are not equally hospitable to deserving cases. We realize fully the financial difficulties involved, but if our institutions are not charitable in the best and fullest sense of the word, upon what representations are they soliciting and securing private funds? It seems to us that in the competition for such funds the largest benefactions ought to find their way into the treasuries of those hospitals which can show the broadest spirit of charity. There ought to be some way of apprising benefactors of the facts in the case.

There would not be such a strain on the public hospitals if the private hospitals discharged fully the obligations which we conceive to rest upon them.

Assaults and Batteries Before Operation.

The work of Crile in minimizing shock has had a salutary effect upon those surgeons who used to prepare their patients without much regard for fatigue, psychological or physical. We hope that there is no one still subjecting his patients to all-night foolery just prior to an operation. The patient would be sent into the hospital the night before the ordeal, and scrubbed, dosed, purged, poulticed and injected all night, at short intervals, so that by the time morning came, and sleep with it, he, or she, was ready to curse his or her tormentors. And then, of course, the stolen sleep was rudely ended and another boro-salicylic poultice applied to the site of the operation. Operation was approached in the worst possible condition to resist shock. Such unnecessary hardships are indefensible, and, we trust, have gone the way of some of the other barbarisms that Crile has eliminated from operating rooms where enlightened surgeons preside.

Miscellany

CONDUCTED BY ARTHUR C. JACOBSON, M. D.

Immigration and Quarantine.

Opinions vary as to the proportions that immigration will assume after the war. If there is a great influx the medical problems which we have from time to time discussed in these columns will become more acute than in the past. It is our own belief that there will be a big jump, for one good reason among others that, while the people of Europe will be impoverished, many of their prosperous relatives now in the United States will defray passage expenses.

It would be short-sighted policy to act upon the negative argument. We must be properly prepared to deal medically with the hordes of new-comers.

We are not in accord with the recommendations of the Chamber of Commerce and the New York Academy of Medicine. The present effort of the United States Public Health Service to gain immediate control of this station is due to its need of a physical equipment sufficient to accommodate cholera cases and contacts in considerable number. It has no station of sufficient capacity for this work and can only hope to utilize our ample accommodations in order to increase its own reputation. This practically means making the station a concentration camp for cholera cases and contacts of a part of the City of New York and exposing this port to dangers greater than those which it should justly meet. We do not fancy that the people of New York would permit the transfer to Federal control to take place if they understood the consequences, so we take it upon ourselves to inform them fully. Moreover, it is well to remember that the United States Public Health Service is only one of the sanitary agencies of the Government, that its quarantine experience has really been very meager, and that the \$500,000.00 which it boasts of having for plague prevention must be largely expended in New Orleans, Seattle and other ports under its control where plague has actually obtained a foothold, leaving but an inconsiderable amount to be applied to the protection of the public health of this port.

The most conspicuous sanitary successes of the Federal Government have not been attained through the United States Public Health Service but through other sanitary agencies, such as the Medical Corps of the United States Army in Cuba and in Panama, and the only Federal quarantine of very great importance, that of the Panama Canal Zone, has recently been established under the control of the Panama Canal Commission with complete independence of the United States Public Health Service. The Chief Officer of that quarantine is not a Public Health Service officer at all but a medical officer of the Army. The big question, then, at issue in this controversy is whether a service that has not yet justified itself by any conspicuous sanitary success and that has had but a very slight quarantine experience shall be allowed to make a cholera concentration camp of New York City.

The conspicuous success of the present administration of the station is known to everybody and denied by none, even by those who have been induced by powerful interests to espouse the ill-advised Federal transfer, and has been formally attested by medical organizations of the first rank and by such a representative of intelligent press opinion as the *New York Sun*.

In further reference to the need of the United States Public Health Service in the matter of physical equipment, it is a fact that when that service found on its hands at Providence a large number of contacts in the case of the typhus fever-infected ship *Roma*, it was found necessary for Surgeon General Blue to remand them to the New York station. On page 69 of Dr. O'Connell's annual report is printed the following telegram:

Washington, D. C., January 6, 1914.

"Dr. J. J. O'Connell, Quarantine, S. I., N. Y.; Health Officer, Port of New York, Rosebank, N. Y.

"Have directed service representative at Providence, R. I., to remand to you for treatment steamer *Roma* with case of Typhus Fever on board and about two hundred steerage passengers, thirty of whom show rise of temperature. Blue."

Again, on February 21st, passengers of the S. S. *Roma* on her second voyage with typhus were sent to Dr. O'Connell, and on April 13th the passengers of the S. S. *Madonna*, who had also been exposed to typhus, were sent to the New York station from Providence.

What further would happen to the New York station with the Public Health Service in control may readily be conjectured. Do the people of New York want this to come about, or would they prefer the Public Health Service to find safer points at which to establish needed equipment? Our present burdens and dangers are surely great enough.

New York State must continue its control of Quarantine for good and obvious reasons, and we believe that it puts more trust in its present Health Officer than it would in any Government bureau. He has established a peculiar relation to it, comparable to that of Goethals or Gorgas to the Panama Canal.

Sanitary Home Rule for us!

Sick Room Strategy.

Isn't it a fact that the worst nuisances and most antagonistic of persons in a house in which there is a sick room are always the most useless? What a joy it is, instead of developing a grouch about the criticisms and acerbities of such people, and fighting back at them, to deal with them strategically. The best method, in our experience, is to praise and thank them with just the right amount of apparent earnestness and sincerity for their presence and aid. Now of course they have no intention of helping in the serious care of the patient, or in the household affairs, and you place them at once on the defensive. You are promptly informed that they have just recovered themselves from a dangerous illness and are very weak. Again, they will tell you that in the presence of illness they feel overwhelmed; they will often admit this kind of alleged helplessness. This is best met by a prompt suggestion that they can do much aside from the direct care of the patient. Another gag is the one about having just gotten through with the nursing of other sick friends; they are exhausted. Very little pressure usually results in the declaration that they must hurry home because of some serious situation there. John left the house in the morning feeling very ill and they know he is coming home in a worse state.

It is foolish to quarrel with sick room ghouls. A great deal of fun can be gotten out of them instead. You are at a disadvantage if swords are crossed, for you are not in the house very much, whereas the ghouls have lots of time for mine planting. They are always

selfish persons, in the house for reasons of morbid curiosity and malicious gossip. Of wholesome interest in the patient there is none. The vulnerable point in their armor is service. Insist tactfully that their presence and aid are indispensable; that without their thoughtfulness, resourcefulness and self-sacrificing spirit everybody would be handicapped. If they are frankly disagreeable, suggest that they are attempting to disguise warm hearts under severe exteriors. Meet their criticisms as though they were prompted by zeal and love for the sick one, and anxiety for his recovery. When they dodge responsibilities, ascribe it to modest underestimation of their abilities.

There are few ghouls who can withstand this kind of management. You may not lessen their hatred, but they are disarmed and spavined, and usually eliminated from the scene.

The thin-skinned and humorless physician leads a hard life at times. His outlook is faulty. If he cannot change it he becomes the prey of the ghouls. If he takes the right view he will make the dark places in his work amusing and refreshing. The discomfiture of a sick room ghoul is the best tonic for a doctor that we know of. He proceeds to his other labors with a laugh on his lips and in his heart, and looks forward to meeting other ghouls with anticipatory pleasure, zest, and fatally efficient wits. A routed ghoul is as gratifying a sight as a normal pulse-pressure late in pneumonia.

The Patient Whom We Have "Given Up."

We hear quite often nowadays about osteopathic "cures" of patients whom we have "given up."

By "given up" is meant, presumably, given up to die. What happens in such cases is really this. The honest physician tells the exact truth about a case, as nearly as he can. He tells the relatives of a patient with valvular disease of the heart that the valve is permanently impaired, or he says that the adhesions which bind down a retroverted uterus can be separated only by operative procedure, or he declares that a cirrhotic liver cannot be regenerated.

These stories that we hear are absolutely the result of our truth telling.

Well, we are going to keep right on telling the truth. We are monopolists in this respect, seemingly.

It is an odd system under which we work, though—telling the truth and being penalized for it.

But isn't that always the case with truth telling? Try to imagine what would happen to the clergyman who told the absolute truth on every occasion to his parishioners. While the discovery of new truths in all ages and in every field of human endeavor has been penalized, it is the restatement of old truths, in our case, that is damaging and expensive.

It seems that it is only the doctor who can afford to defy economic laws. He tells the truth and loses his cases; he takes care of the sick poor in huge institutions without pay therefor.

So long as we have the doctor, Utopia is not inconceivable.

The Regulation of Prescribing.

The prescribing of opium and cocain is now under Federal scrutiny. Well and good. But is this not the entering wedge wherefrom will result further regulation? Ergot and the poisons in general are yet to be brought under supervision, if we mistake not the socialistic tendencies of the day. Such regulation can

be justified in a thousand specious ways, and rest assured the self-constituted guardians of the universe will yet reach this proposition. One word covers the programme to which we seem to be committed—Standardization. Medical education is being standardized, prescriptions will be standardized, everything is to be standardized. Bureaucracies without number will preside over the practice of medicine and over practitioners. Professor Josiah Royce reminds us that standardization is not scientific. It is Chinese, and we are the victims of governmental mandarins. Medicine is being Rockefellerized and Carnegieized, and the phenomenon is not a sign of health. Royce does not think that education can be "militarized" with profit. The process degrades and disgraces educational life. Royce declares that any institution, or foundation, whether benevolent or not in its intentions, becomes a just object for careful and considerate criticism if its nature or its tendencies show that it is liable to overemphasize the standardizing disposition. Whatever foundation has large control of financing resources ought to expect and should welcome close and constant scrutiny of the relation of its work to the motives which are prominent in forming the spirit of scholarship and of investigation, in guiding the lives and ideals of teachers and in controlling their private and personal fortunes.

The Bowel in Pneumonia.

The importance of reducing the element of intestinal toxemia in pneumonia to its lowest terms by proper regulation of diet has often been emphasized, particularly by Cornwall, of Brooklyn, whose success in treating pneumonia with this idea in view has been notable. Some of the overwhelming toxemias seen in pneumonia are undoubtedly intestinal in origin in large part. Recently the writer treated a boy of seventeen for a severe attack of acute lobar pneumonia who seemed unable to expectorate. Every bit of sputum was automatically and involuntarily swallowed as soon as raised. In other words, the necessity of clearing out the intestinal tract continuously was more than ordinarily urgent. Therefore castor oil in tablespoonful doses was administered every other day. During the first three days of the disease there were hyperpyrexia and active delirium. After that things went along very nicely and there was the gentlest kind of a crisis—a little perspiration, a leisurely drop in the temperature and pulse, and but little effect on blood-pressure. On March 18 the pulse pressure was 80, on March 19 it was 70 (day of the crisis), on March 20 it was 60, on March 21 it was 70, and on March 22 and thereafter 52 (auscultatory method). It is the writer's belief that the mild crisis and easy transition to a recovered state of health were in large part due to the method adopted. No drugs or alcohol were used. Of course, one case proves very little—can be regarded only as suggestive.

The Continued Entertainment of Able-to-Pay Dispensary Guests.

We used to think that the stories about patients driving up to dispensaries in limousines were largely gags, or at any rate that the thing had ceased, but we actually saw it happen the other day.

Well dressed people get away with it all the time, but the clinic directors tell us that prosperous appearance means very little, since good dressing is essential in some callings, even though cheaply paid.

Well, we still have a hunch that some clinic physicians are willing goats.

How a Diagnostic Means May Become a Therapeutic End.

"Doctor," said a simple old lady whom we recently treated for some cardiac trouble, "that thing you put on my arm last week did me more good than any medicine I have taken." We suppose the measuring of blood-pressure has often been taken for a therapeutic procedure and has received much credit of the sort suggested in the old lady's remark.

A Sad Fact.

The astonishing number of burned children in our hospitals is something to excite the resentment and preventive energies of the informed. There must be a deal of criminal carelessness as well as of pure accident. A census would reveal deplorable conditions. A campaign of the press against this sort of thing would do great good. We have greatly concerned ourselves in the matter of Fourth-of-July injuries and resulting tetanus, but every hospital in the land has its burned children every day in the year.

The Workmen's Compensation Fee Schedule.

Our statisticians spin some wonderful figures in computing the economic loss to the nation through morbidity and deaths from tuberculosis and other scourges. They place a very high value on human lives in this connection. But when they are computing what surgeons ought to be paid for their services in conserving human lives and health under the Workmen's Compensation Act the figures are very low. The medical men who "represented" the profession in making up a more or less tentative fee schedule figured very closely and forgot all about their tuberculosis statistics. We are glad to learn that in rendering bills the surgeons forget all about that precious fee schedule.

Syphilis of the Nervous System.

Intraspinal injections of salvarsan are indicated (1) in cases of cerebrospinal syphilis which fail to yield to intravenous treatment. (2) In cases of syphilis of the nervous system in which the blood reaction is negative but where the spinal fluid shows a positive Wassermann reaction with a globulin increase and a pathological cell count. It is easier to influence the cell content than the globulin and Wassermann reaction by this method but all reactions yield to persistent treatment except in paresis. In the latter the cell count may be reduced to normal by treatment, but little success has been attained in changing the Wassermann reaction.

Some syphilographers are employing the Swift-Ellis method of intraspinal salvarsanized serum direct into the spinal canal. Others are using the so-called Ogilvie method, by which from $\frac{1}{4}$ to $\frac{1}{2}$ milligram of salvarsan is added to 10 c.c. of blood serum. After this combination has been made, the serum is incubated for an hour at the temperature of 98° F., and is then inactivated for a half an hour at 57° C. Upon the completion of this technic the serum is injected into the spinal canal by a method similar to that of the Swift-Ellis.

Some of the best American syphilographers believe that the results obtained by this method are more rapid than those which follow the introduction of the salvarsanized serum.

Eczema of the anus, fissures, fistulæ, hemorrhoids, anal tags and anal papillæ, pediculi and furunculosis and certain vaginal discharges cause pruritus ani.

Special Article

The Schick Test for Immunity to Diphtheria.

Another advance in medicine is the Schick test. When applied to those who have been exposed to diphtheria, a positive reaction demonstrates the advisability of giving prophylactic injections of anti-diphtheretic serum. Not only will this be an economic saving in serum, but it prevents the unpleasant reactions that some people, who in some way appear immune, show after what we are now lead to believe are unnecessary injections for prophylactic purposes. The Schick test, when used in combination with proper bacteriological examination, will single out the diphtheretic carrier.

The test was not made in Germany, the home of most of the advances in medicine, but comes from Vienna, where it was discovered by W. B. Schick, although W. H. Park of New York was an early worker in the field.

Some instructive articles on the test appeared in the *Journal A. M. A.* of April 10.

Herman N. Bundesen, of the Department of Health, Chicago, gives a report of 800 tests. He notes that systematic observations by numerous workers indicate that the blood serum of about 80 per cent. of the newborn, from 50 to 60 per cent. of children and 90 per cent. of adults contains sufficient diphtheria antitoxin to make them insusceptible to diphtheria, and hence makes it unnecessary for them to receive a prophylactic injection of diphtheria antitoxin. The reaction depends on the local irritant action of minute quantities of diphtheria toxin when injected intracutaneously, in the absence of antitoxin. Schick's results are in accord with those obtained by the more elaborate method of Römer which makes it possible to titrate accurately the amount of antitoxin in the blood serum. Römer's method consists in the intracutaneous injection in guinea pigs of a definite minute quantity of diphtheria toxin and a definite amount of the serum to be tested for antitoxin. If no necrosis results, the toxin has been completely neutralized by the available antitoxin in the serum.

For the carrying out of the Schick tests it is essential to have an accurate 1 c.c. all glass hypodermic syringe, having a scale divided into ten parts, and a short, sharp, fine platinum iridium needle, sufficiently fine to be introduced between the layers of the skin. To introduce the needle, have the opening or beveled aspect of the point looking upward and hold the head of the syringe lower than the point when introducing the needle into the skin.

The skin of the flexor surface of the upper one-third forearm is cleaned with tincture of green soap and 95 per cent. alcohol. With the thumb and first finger of the left hand pinch up a small portion of the skin and carefully insert the needle into, but not through the skin so the opening in the point of the needle is covered and so the needle can be seen beneath the superficial layer.

A dilution of a fresh standard diphtheria toxin is made of such a strength that 0.1 c.c. contains 1/50 of the minimum lethal dose for a 250-gm. guinea pig, and this is injected, pressure being exerted in an upward direction. If the injection has been properly given, there is to be seen at once a white bleb-like elevation which persists for several minutes and is distinctly studded with little pits corresponding to the opening of the hair follicles.

The results are available at the end of twenty-four

hours. If antitoxin is absent or present only in very small amounts—insufficient for protection—a positive reaction appears, which is characterized by a constantly increasing circumscribed area of redness (halo) and induration of from 10 to 25 mm. in diameter that reaches its maximum in forty-eight hours. It persists for about a week, and on fading shows a brownish pigmentation with superficial scaling and a characteristic central infiltration.

Positive reactions indicate that there is less than 1/30 unit of antitoxin in 1 c.c. of blood serum. Such persons are susceptible to diphtheria. Though intensity of the reaction varies in different individuals, a well-marked redness indicates a complete or almost complete absence of diphtheria antitoxin. Faint reactions point to the presence of small amounts of antitoxin.

Researches have proved that there are no antibodies against diphtheria in the blood serum of children taken sick with diphtheria; that those persons taken sick prior to injection with antitoxin always give a positive skin reaction, while the negative intracutaneous reaction always proves the existence of protective bodies in sufficient numbers for prophylaxis against diphtheria toxins.

Bundesen says that in eight hundred persons 60 per cent. are possessors of antibodies in sufficient numbers to make a prophylactic injection of diphtheria antitoxin superfluous.

No case of diphtheria has developed in those showing a negative Schick reaction, and he feels perfectly safe in leaving a case showing a negative result without prophylactic inoculation, no matter how intimately exposed.

In regard to the new-born, their high percentage of immunity is undoubtedly accounted for by the fact that the colostrum and even the milk of nursing mothers to a certain degree is antitoxic. Park concludes that infancy is protected from most of the common communicable diseases through this absorption from the colostrum during the first days of life.

Of those cases showing a negative result, 8 per cent. had diphtheria at some previous time, while 23 per cent. of those yielding a positive reaction had suffered from diphtheria. Ott's researches confirm the assumption that a single attack of diphtheria does not cause sufficient antitoxin production to produce lasting immunity.

Of the forty-four "carrier" cases, 70 per cent. were negative and 30 per cent. showed a very faint reaction. Not one frankly positive occurred among the forty-four cases. Bacillus "carriers" invariably have a high antitoxin proportion and depend on this factor for immunity. This is why they are "carriers" and not true cases of diphtheria.

Bundesen found that children of the same family invariably gave a similar reaction. They were either all negative or all positive.

He concluded that by means of the Schick test we are in a position to tell definitely who is susceptible to diphtheria and when an epidemic breaks out we can inject those and those only, paying no further attention to the ones giving a negative reaction.

By it the danger of cross-infection is greatly decreased. Children with diphtheria that have had scarlet fever and are therefore immune from scarlet fever can be placed in scarlet fever wards when the inmates yield negative Schicks. It permits a great reduction in antitoxin bills. Much needless pain and annoyance of patients is avoided, and the possibility of anaphylactic shock is greatly minimized.

Charles Graef and George Ginsberg of New York also discuss the Schick test. Recognizing the fact, that certain persons have a natural immunity to diphtheria and will not take it, they show that many of these become carriers of the Klebs-Loeffler bacilli, and infect others.

Finding the diphtheria organism in the throats of such persons is of uncertain diagnostic value unless supplemented by a test to show whether immunity is present or absent. In such cases sore throats due to other organisms may easily be confounded with diphtheria, the diagnosis being established by the laboratory finding the Klebs-Loeffler organisms.

These are among the cases which puzzle and worry the doctor.

The Schick test offers a promising aid in this matter. If by a simple injection into the skin we can determine who is, and who is not, liable to infection, a long step is taken toward simplifying the handling of these situations.

1. The use of immunizing doses of antitoxin will not be necessary if persons exposed to infection are found to be naturally immune.

2. Even when bacilli are found in the throats of such persons, no injection of antitoxin need be given when they suffer from tonsillar or other pharyngeal infections.

3. Nurses in institutions, when proved immune, can safely care for diphtheria patients while susceptible nurses are kept away and employed on other cases.

4. Much aid can be had in solving the puzzle of why one patient recovers without antitoxin while the next, apparently an exact counterpart, dies in spite of the use of this valuable remedy.

Graef and Ginsberg think Schick's test is simple, safe and reliable.

It is not more difficult to make than the Pirquet test made with tuberculin for tuberculosis, and consists of the intracutaneous injection of a prepared solution containing minute quantities of diphtheria toxin. This will produce a positive reaction in twenty-four or forty-eight hours if antitoxin is absent, or present in amount insufficient for protection.

The reaction consists of redness and slight swelling over the injected area. It continues for a week or more and leaves a brownish pigmentation with superficial scaling for a time after this.

In a small percentage of older children and adults there is a pseudoreaction even large when amounts of antitoxin are present, and these must be carefully distinguished from the true reactions.

The pseudoreaction can be recognized by its earlier appearance, its less sharply circumscribed form, greater infiltration, and the fact that it disappears in twenty-four hours or two days at the latest. The spot is less pigmented later, and superficial scaling is not noted.

The following tests were made in Lincoln Hospital, New York, and were begun because of a troublesome outbreak of diphtheria among the nurses in December, 1914, which continued to crop out at intervals through the following January; 0.2 c.c. were used for each injection.

The nurses were colored women ranging from 25 to 35 years of age.

Seven had no history of diphtheria, or of having had antitoxin. Three gave Schick positive; four, Schick negative.

Five cases had clinical diphtheria within six weeks of the test; all gave a negative Schick.

Eleven cases were isolated because the Klebs-Loeffler bacilli were found in the throat. They all gave a negative Schick and did not develop clinical diphtheria. They were given local treatment for the throat, and repeated cultures were made. Two gave a positive culture once. Two gave a positive culture twice, and the other seven gave more than two positive cultures.

Twelve cases had no diphtheria, but had immunizing doses of antitoxin within six weeks of the test. Ten were Schick negative; two were Schick positive.

Three cases had diphtheria from eight to ten years previously. Two were Schick positive and one was Schick negative.

Eighteen children ranging in age from 3 weeks to 5 years were also tested. These patients were in the hospital for a variety of causes: feeding, intestinal troubles, hernia, pneumonia, fractures, etc.

In nine children under 14 months, three were Schick negative and six Schick positive. In nine children from 14 months to 5 years, two were Schick negative and seven Schick positive.

None of the children had had diphtheria or antitoxin.

Twenty-six patients, adults, were also tested. Eighteen gave a positive Schick and eight a negative Schick. One of the negative cases had received antitoxin a month previous. So far as these tests were carried, they confirm the findings of Schick, Park and others.

Graef and Ginsburg conclude that:

1. The most susceptible age is between 1 and 5 years.

2. Immunity obtained by having the disease or by the use of immunizing doses of antitoxin lasts from a month to several years, varying greatly in different individuals and being very brief in children.

3. The Schick test is a helpful agent in testing the efficiency of immunization by antitoxin as well as the natural immunity existing in many persons.

4. It has helped to place on more certain grounds the assurance that bad cases of diphtheria should receive early and large doses of antitoxin by intravenous injections. Antitoxin is ten times as effective when so used, as compared with the ordinary method of administration.

5. Park has obtained results in families showing a striking similarity in reactions to the test. If the youngest child of a family has a negative reaction, all the older children are likely to be negative, and if the older children are positive, the younger ones are also. When variations are found, the younger children show the positive reaction.

Ellsworth E. Moody, of St. Louis, observes in this connection that while Schick, in his work, used 0.1 c.c. of toxin dilution which contains exactly 1/50 the minimum lethal dose, and Park preferred to use 0.2 c.c., he used a dilution in which 0.05 c.c. contains 1/50 the minimum lethal dose, and the results seemed to be quite as constant and the discomfort accompanying the injection of the smaller quantity less.

The positive reaction which indicates the absence of antitoxin in the blood appears in twenty-four hours as a circumscribed hyperemic, indurated area, usually becomes most marked in forty-eight hours, persists for from a week to ten days and heals by central brownish pigmentation and scaling which clears up in from two to three weeks. A "pseudoreaction" has been reported in older children and adults, which does not show the same degree of induration nor the typical scaling and pigmentation. Moody shows that the period of

greatest susceptibility to diphtheria is between the first and sixth years. The periods of least susceptibility are under one year and over 15.

Even recently it has been suggested that the diphtheria toxin reaction might be due to a general reaction to all toxic materials. Intradermic tuberculin reactions are made on all patients entering the St. Louis Children's Hospital, and of the first 180 patients who were also tested with diphtheria toxin, only thirty-four gave similar reactions to the two tests.

In order to determine whether or not the negatively reacting individuals were carriers, and owed their antitoxin to an active immunization, cultures were taken on 200 negatively reacting patients, and, in spite of the fact that all of these had been exposed to diphtheria, positive cultures were obtained in only eleven. The knowledge that only a small percentage of negatively reacting persons are carriers and that none of them will develop clinical diphtheria makes the handling of epidemics somewhat easier. At the time of a recent epidemic, all patients who were admitted to the wards of the St. Louis Children's Hospital with conditions other than diphtheria and whose Schick test was positive, were given immunizing doses of antitoxin; but a few cases of clinical diphtheria developed from two to four weeks after receiving the antitoxin. Moody has not seen a case of true clinical diphtheria in negatively reacting individuals.

By making the Schick test at intervals before and after the administration of antitoxin in each of the three methods, subcutaneous, intramuscular and intravenous, we have been able to confirm the work of Schick which shows the greater immediate efficiency of intravenous administration and the relatively greater efficiency of the intramuscular over the subcutaneous injection. An opportunity to determine the duration of immunity following the standard immunizing dose of antitoxin, was offered Moody at the St. Louis Industrial School, where, following the development of a few cases of clinical diphtheria, all children received 1,000 units of antitoxin subcutaneously. Four weeks after this antitoxin administration, Schick tests were made on 316 children.

Seventy-eight out of the 316 cases, or 24.5 per cent., reacted positively. In order to determine how many of the cases which reacted negatively to the 1/50 minimum lethal dosage, and therefore had as much as 0.031 units of antitoxin per cubic centimeter of blood, would have as much as 0.06 units of antitoxin per cubic centimeter of blood, fifty-five cases were tested with 1/25 the minimum lethal dose, that is, with exactly twice the quantity of toxin.

Eleven showed mildly positive reactions which, however, did not show typical healing. Forty-four, or 80 per cent., gave negative reactions, which may be taken to indicate that, per cubic centimeter of blood, this percentage of cases has more than twice the amount of antitoxin that is necessary to protect from diphtheria.

There is no immunity conferred by this minute dose of toxin, as cases which react positively continue to show positive reactions to injections over a period of weeks, unless immunized by an active diphtheria or by the administration of antitoxin.

Moody concludes that the test is of definite clinical value in differentiating between persons who are susceptible to diphtheria and those who are not susceptible, and is therefore useful in determining which cases, of those to be placed in an environment where the liability to exposure is great, should be immunized.

It is of value in differentiating between clinically doubtful cases of diphtheria, positive reactions being obtained in clinical cases, negative reactions in carriers.

It is useful in experimental work in determining the effects of various forms of immunization and the duration of immunity conferred by these methods.

It has a definite value in the handling of diphtheria epidemics in institutions.

SOME PRACTICAL APHORISMS ON PULMONARY TUBERCULOSIS.

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Nearly every man, woman and child is or has been infected with the bacillus tuberculosis before reaching his twelfth year.

Ninety-five per cent. of all these patients recover without treatment or in spite of treatment and are now tuberculized.

The tubercle bacilli may remain latent in the host during a lifetime.

Patients may lose their acquired immunity and become reinfected or a latent process may start up *de novo*.

Without an anemic area the tubercle bacillus will not thrive and multiply.

Unless the bacilli do thrive and multiply tuberculosis cannot develop.

Children recover from their first tuberculous infection as they do from measles and scarlet fever.

Prevent reinfection or the lighting up of a latent focus by preventing anemia.

*Diathermia applied to the pulmonary region will absolutely overcome anemia for the time being.

Lung gymnastics will continue and make permanent the temporary gain of diathermia.

The normal blood contains all the elements necessary for a cure; proper use of hydrotherapy will increase the red and the white corpuscles.

Vegetable proteids, cream and fat insure proper metabolism.

Regulated physical exercises cause auto-sero-therapy in the patient.

Pure outdoor air is grateful to the lungs and the patient forms the habit of proper breathing.

Bad, foul or vitiated air is shunned by the lungs and trains the patient to breathe as shallow as possible; his efforts are in the path of least resistance.

Forced feeding and the administration of drugs in this disease is, to say the least unphysiologic, therefore of questionable value.

The main fault with the average patient is that he seeks medical advice rather late; the fault with many a physician is that he tries to cure his patient with high pressure speed.

The road to success is not paved with golden blocks nor strewn with roses.

Creosote, vaccines, serums, tuberculins and forced feeding ought to be relegated to the past, while physiological therapeutics ought to take their place.

Practically every case of tuberculosis is curable if treated on the above outlined aphorisms.

231 W. 96th St.

* Diathermia is a term meaning "heating through;" this is accomplished by placing the parts to be heated between the two poles of a high-frequency apparatus.

Medical Editorial Table

The Harrison Anti-Narcotic Law.

The workings of this act are causing considerable comment, but experience will aid in its execution without undue difficulty. It is by no means a perfect law, but if it will assist in minimizing the rapidly spreading drug habit evil, a vast amount of good will result. An excellent opportunity is offered the many good hospitals and sanitariums in the country to demonstrate the value of their methods.

The *Journal-Lancet* of April 1 sees much value in the law, as it thinks it will have a beneficial influence on the community. The editor believes:

"The greatest burden will lie upon the old habitué who has been addicted to the habit for from ten to forty years, in moderate doses, as the habitual drinker takes small doses of liquor. These old people should never be deprived of their stimulant. For instance, a woman of sixty-five or seventy years, who has taken opium in some form for many years, should not be cut off, as its withdrawal would mean immediate death. Arrangements can be made between the physician and the druggist to keep up a reasonable supply, as the Harrison act evidently does not contemplate the suffering of the old habitué. The average druggist will honor the prescription of the doctor, particularly if the situation is explained to him.

The greatest benefits that arise from the Harrison act are the cutting off of the unscrupulous peddler of the drug; and, so far, the vicious peddler among the unfortunates has kept pretty well under cover. A fine of two thousand dollars and a prison sentence does not seem very inviting, even taking into consideration the profit obtained from the sale of any habit-forming drug.

"If some of these drug peddlers could be sent to the penitentiary for two or three years it would do much to impress them with the sincerity of the Harrison act, and it would discourage unfortunate and unstable individuals from beginning the drug habit."

The drug pedler is an insidious criminal, who stabs in the dark. He deals out death-dealing poisons for reputable drugs. The innocent suffer on account of the criminality of the pedler and the cupidity of the purchaser, be he physician or druggist. A few State prison penalties and drug peddling will not be as popular with those shadowy individuals who sell fake aspirin, veronal, salvarsan, antipyrin and other drugs to druggists and cocaine and heroin to school children.

The Vitamines.

Science is advancing by leaps and bounds. New discoveries are constantly being made, particularly in the field of preventive medicine. *American Medicine* for February directs attention to one of the new factors in dietetics, the Vitamines:

"They are nitrogenous bodies of definite chemical composition, first isolated and described in 1911 by Casimir Funk of London. In nutrition they play a role which might be likened to that of the hormones in cellular activity or the opsoning and other antibodies in the infections. It is known to co-ordinate and harmonize so many detached facts in malnutrition. Avitaminosis is a blanket term used by Funk to cover all the deficiency disease—scurvy, beriberi, pellagra and rickets. To these we may add a host of ill-defined conditions in the poorly fed and variously attributed to calcium, potassium or phosphorus starvation. An excess of vitamins is alleged to be the cause of cancer.

"These remarkable substances exist in exceedingly minute quantity and may act like enzymes, catalytically changing a large amount of food. They are found in the outer layers of grains, but not in the starchy center, thus accounting for beriberi after the use of polished rice, and pellagra after milled corn. They seem to be destroyed in many corned, pickled or dried foods, thus accounting for scurvy. They are, of course, largely in excess of the natural foods—milk, eggs and meat—and to a less extent in yeast, fresh fruits and uncooked vegetables, particularly potatoes, whose juice is so effective in scurvy. The condition we have called nitrogen starvation may

exist even when the vitamins are abundant, so it has no relation to what Funk calls deficiency diseases. Yet those in a condition of nitrogen starvation are likely also to be suffering from deficiency of vitamins and therefore furnish a large percentage of cases of scurvy, beriberi and pellagra. They are cured by anything containing vitamins, but their nitrogen defect is not relieved unless proteins also are administered.

"It is suggested that a diet defective in vitamins also weakens our acquired immunity to tuberculosis, and that the rich diet we now prescribe cures by reason of the excess of vitamins rather than the nitrogen solely. In polyneuritic pigeons fed on polished grain the thymus undergoes extreme atrophy, showing a relation between the hormones and vitamins. Indeed, the subject opens up a new field. For the present, we must insist upon variety of diet in all conditions, for one article may supply vitamins lacking in another. Sameness clogs, perhaps because of a physiological hunger for the missing stimulants. By all odds, this new conception is the most far-reaching one of recent years, and will probably clear up many of our dietetic puzzles."

The Evolution of Prison Management.

Reform is often viewed with distrust, on account of the selfish motives underlying the activities of so-called reformers. But when common-sense creeps into the management of affairs, in which it has hitherto been conspicuous by its absence, men welcome its advent and gladly give it credit whether under the guise of reform or some other designation.

Men are learning that a man is not suddenly transformed into an animal when prison gates shut him from the outside world. Warden Osborne and others of similar belief are demonstrating that when prisoners are treated with kindness they will respond like men. Doubtless some persons in prison are incorrigible, but we opine that the vast majority can be reclaimed to useful lives with the proper training. Honor bands and similar organizations are part of the leaven, which is working out the ultimate salvation of the men in grey (heaven forbid stripes).

In Joliet prison, Illinois, is published the *Prison Post*, a splendidly edited journal and all of its editors and contributors stand convicted of some infraction of the law. Through this medium they give their thoughts to the world. Read this editorial in the April issue:

"Though the history of mankind is little else than a narrative of designs which have failed, and hopes that have been disappointed, a true and perfect fellowship of the race is the errand of Progress. Progress comes by experiment, and begins with the minority. It is completed by persuading the majority, by demonstrating the reason and the advantage of the forward step.

"Society must be obeyed; it has the one eternal law—Custom written by the great teacher, Experience.

"But the respect for liberty and justice on which society is founded is, in this new era, the respect which also shows a mercy towards all men, which consults the interests of the whole human race. And so it has come to pass that the world is awakening to the consciousness that the prisoner within the walls is, after all, a component part of society's system; that progress ends and decline invariably begins when he is ignored as a factor in the gradual and harmonious development of the constitutional powers of humankind.

"Does it mean anything more?

"Yes. It means that there glows brighter within the human heart that principle of life, that element of all religion, that link between the soul and its myriad-minded God, which cannot vanish or wither or take wings; which survives life, and reaches beyond it—the divine spark of Love, immutable and which seeketh not her own."

There certainly is hope for better things when men can write in that inspiring tone. A man with such sentiments, even though at one time a law-breaker, has high aspirations. Let us be done with determinate sentences. Let us educate prisoners up to a high standard and not beat them down into the slough of criminal despond. Let us not forget that after all each one is created in God's image.

The Pan-American Medical Congress.

All Americans believe in the cultivation of the friendship of the Pan-American countries. Surely, therefore, should the physicians of the America's become better acquainted, if we are to be, as President Wilson says, "comrades in some common undertaking for humanity." The forthcoming Congress which will be held the week of June 17 in San Francisco under the direction of the inimitable and energetic Dr. C. A. L. Reed of Cincinnati promises to be the greatest Pan-American Congress of the seven.

The *Lancet-Clinic* of April 3 says in this connection:

"Pan-Americanism has no charms for the Little American, the Little Canadian, the Little Mexican, the Little Brazilian, the Little Argentine, the Little Chilean, or the Little Anything-else on the Western Hemisphere. It can and does and must have a strong appeal for every broad-minded man in every country concerned, who recognizes that we have common aims, common purposes, common duties, common sympathies and common affections that propel us to common acquaintance, common helpfulness and common happiness.

"It should be recognized in this connection that the central thought of the Pan-American movement is reciprocity—actual, sympathetic reciprocity. The only basis for reciprocity of this character is actual and sympathetic knowledge of each other. This means that we must go to each other's cities, examine each other's schools, go through each other's hospitals, work in each other's laboratories, visit each other's homes, and thus endeavor to strengthen ourselves as far as possible not only with each other's knowledge, but sustain ourselves as far as possible by each other's personal friendship. We, therefore, hope that many may come to us from outside our country, and we trust that many Americans may go to meetings yet to be held in the other American countries. Our great universities and hospitals are open to our guests. We know equally well that the splendid institutions at Rio de Janeiro, Montevideo, Buenos Aires, Santiago, Lima and other South American cities where much of the most scientific work of the world is being done, have wide-open doors to the medical visitor from other lands."

The Spread of Syphilis.

War destroys by disease as well bullets. English and French reports have persistently mentioned the increase in venereal disease among troops and the *Medical Journal of Australia*, Feb. 27, 1915, speaks in no uncertain tone regarding the matter:

"A special and entirely unforeseen danger of an increased spread of syphilis has arisen in connection with the war. A number of our men who volunteered to fight for their country are now returning, not wounded but invalidated by syphilis. These men, instead of serving their country in a useful manner, and instead of making sacrifices which, when made, lend splendor to the Empire, have wasted their country's money, have soiled their country's name, and are, or might be but for the foresight of those in power, a disgraceful danger to the welfare of the population at home. A member of the first contingent from Australia states that there were 200 of our soldiers under treatment for venereal disease at one time, and he makes the astounding statement that 10 per cent. of the whole force has been infected since leaving our shores. If this be in accord with fact, the safeguards which are being adopted by the military and civil authorities will be insufficient when the war is over and the men return. It is well known that after a war, and indeed during its currency, the world loses its balanced judgment. Women look on khaki-clad men, on account of their bravery and reckless devotion, as heroes all. In the instance of the Cuban war no secret was made of the fact that the men were petted and caressed to an extravagant extent when they returned. In London, the man in khaki is the darling of women in all grades of society. This means that unless the facts are faced and a rigid program of education and medical control is carried into effect, the fruits of British victory will be discounted by a heavy entry on the other side of the account.

"In regard to the men returning invalidated with syphilis, little danger exists. The military authorities have arranged that no soldier will be allowed to land before he has been examined with care. In regard to the men returning in civilian dress, the Quarantine Department will take effective measures. This has already been carried out in three instances at least. The sufferers are arrested and placed into quarantine until free from danger to others."

Diagnosis and Treatment

Value of Rectal Examination.

H. G. Anderson of London points out the necessity of rectal examination of the prostate. Cowper's glands cannot be felt in the normal state, but when inflamed they can be by introducing one finger into the rectum, keeping it close on the membranous urethra, and sinking the thumb into the perinæum. Per rectum, the prostate is felt as two distinct lobes separated by a median furrow. This aspect measures one and one-quarter inch long and one-half inch transversely. The gland has a uniformly elastic feel.

In acute prostatitis one or both lobes may be felt enlarged, firm, and tender. When abscess formation occurs, the swelling increases rapidly, pain and tenderness are increased, soft areas appear, and these signs are accompanied by rigors, rise of temperature, etc. The abscess may rupture into the rectum or be opened by this route. In chronic prostatitis, the prostate may show no change in mild cases—or it may be firmer and more tender than usual.

In tuberculosis of the prostate, a few small hard nodules may be felt in a gland of otherwise normal consistence. Nodular areas are also usually felt in the seminal vesicles and the vas, whilst t. b. may be found in the urine. In enlarged prostate, the gland may be felt much increased in size, sometimes almost occluding the rectal lumen; in other cases, very little enlargement is felt per rectum, the symptoms being mostly due to the intravesical growth of the gland. The median sulcus is usually obliterated, the surface feels smooth, the consistence uniform and elastic, and the gland is movable.

The size and mobility of the prostate may be estimated by means of a bimanual examination—one finger in the rectum, and the finger of the other hand pressing down above the pubes, taking care that the patient's bladder is empty beforehand.

Atrophy of the prostate may occur as a senile condition, or follow castration performed before puberty, or as a sequel to chronic prostatitis. This condition is readily recognized per rectum. When carcinoma affects the prostate, the latter is felt hard and fixed with an irregular nodular surface, while lateral spread in the lymphatics may be felt at the upper border of the gland. In cases of prostatic calculi, fine crepitation may be elicited per rectum.

The seminal vesicles are about two inches long and one-half inch broad, and cannot be felt as a rule per rectum. In acute vesiculitis, a complication of gonorrhœa the vesicles are felt per rectum as two sausage-shaped swellings, doughy and tender to the touch. They subside gradually as the urethritis declines. In chronic vesiculitis, they become thickened and tough, with well defined outlines. In tuberculous vesiculitis, they become hard and nodular, and sometimes feel like a chain of beads; but they are rarely affected alone in tuberculous disease.—(*The Practitioner*, No. XI, 1914.)

The Causes of Backache.

L. W. Littig observes that sacro-iliac relaxation may be ignored as a cause of backache, although strain of this joint is a factor.

Defective or faulty posture, by throwing undue strain on certain groups of muscles, ligaments and tendons, is an important cause of backache, which is best treated

by the application of a "good" corset and by proper calisthenics and by gymnastics.

Flat foot is not infrequently a cause of static backache.

A small per cent. of backaches is due to pelvic disease, which causes tension on intra-pelvic ligaments, or by causing a forward tilting of the pelvis, resulting in an exaggerated lumbar incurve and static backache.

About 25 per cent. of cases of backache are traumatic. About 15 per cent. of cases of backache are arthritic.

A good corset is short behind especially at the top; it is long in front especially at the bottom; it is incurved at the waist line behind and at the sides, but is straight in front; it fits very snugly between the trochanters and the crests of the ilia, but it is loose at the top.—(*Med. Herald*, March, 1915.)

Incipient Pulmonary Tuberculosis.

C. C. Lawhorn of Milwaukee says that to bring out the fine diagnostic moist râles on auscultation, A. F. Beifeld depends on the well known deep inspiration, sharp coughing, a deep inspiration after the patient has counted as long as possible in a single breath, administration of potassium iodide, etc. In addition he describes a new method, "The whispered voice method." The patient is instructed to whisper in an emphatic manner in a single breath, "One, two, three," several times following which he is to inspire deeply. (The latter he does spontaneously.)

Lawhorn verifies this method as being quite effective, having used the same since 1910, when he observed the phenomenon by accident in testing whispered pectoriloquy in the Tuberculosis Clinic of the Presbyterian Hospital in New York. In addition he instructed the patient to count repeatedly in whispers "One, two, three," six or more times, in the same outgoing breath and then to cough also in the same breath, taking care not to inspire at all before the cough, then to inspire deeply, immediately after the cough. The patient will always spontaneously take a deep inspiration after the cough.

If the fine râles sought for are constantly present and not dissipated on coughing followed by deep inspirations or are elicited regularly after the continued whispering, coughing and inspiration combined, the conclusion of a positive diagnosis is justified.

The diagnostic factor is that if the fine moist râles are transitory or disappear by this or any of the auscultatory methods, the condition is not of a tuberculous nature as is exemplified in a bronchitis, where upon the first examination more or less suspicious râles are discovered, but upon repeated deep inspirations or coughing they disappear temporarily or permanently, while in pulmonary tuberculosis the opposite is true.

Lawhorn has found the methods valuable and effective in the examination of children who will not breathe satisfactorily, in adults who cannot or will not breathe in the way desired, and in very muscular men whose normal muscle sounds interfere with the respiratory sounds.—(*Arch. Diag.* No. 1, 1915).

The American Association of Clinical Research

JAMES KRAUSS, M. D., Permanent Secretary and Editor.

MEDICINAL THERAPEUTICS.*

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The object of this association is the unbiased investigation of the component parts of the great science of medicine. All knowledge based upon clinical fact, whether it be from the fields of electricity, mechanical therapy, surgery, etc., is welcome to our members. Sir Arthur Conan Doyle referring to a true scientist in one of his books, remarks that if he were falling from a balloon he would make notes of his sensations while passing through the air. A record of the facts would be his most vital interest and not the personal results.

After nearly fourteen years' experience, including eleven as a teacher in our New York College, I feel that I may interest you in that branch of medicinal therapeutics which cures disease by the method of symptom similarity.

The credit for the discovery of this homeopathic method of treatment belongs to Hahnemann. Hippocrates gave numerous examples of homeopathic cures in his treatise entitled "On the Places in Man." The following prescription was recommended: "Give the patient a draught made from the root of mandrake in a smaller dose than sufficient to induce mania." He lived between 460 and 357 B. C. A little piece of poetry written by Athenaeus about 404 B. C. runs as follows:

* Read before the Sixth Annual Meeting of the American Association of Clinical Research, Baltimore, November 6, 1914.

"Take a hair, it is well written,
Off a dog by which you're bitten,
Work off one wine by his brother,
And one labor with another."

Cook with cook, and strife with strife,
Business with business, and wife with wife."

Shakespeare wrote in *Romeo and Juliet*:

"Tut, man! one fire burns out another's burning;
One pain is lessened by another's anguish.
Turn giddy and be held by backard turning;
One desperate grief cures with another's languish:
Take thou some new infection to the eye,
And the rank poison of the old will die."

The preface to "Samson Agonistes," written by Milton in 1671 contains the same thought: "In phisic things of melancholic hue and quality are used against melancholy, sour against sour, salt to remove salt humors, etc."

No application was made, however, until Hahnemann gave the result of his prodigious labors to the world, placing his method on a solid foundation. To him alone belongs the honor.

In a short paper nothing more than the briefest description of Samuel Hahnemann's master mind and his discovery can be undertaken. He was born in Meissen, Saxony, April 10, 1755. Always a great student he became remarkable for the depth and versatility of his knowledge. He was one of the greatest linguists of his time, speaking ten languages, a chemist, botanist, hygienist and possessed a knowledge of mining and smelting. The list of his works covers twenty-seven pages in Bradford's "Homeopathic Bibliography."

What interests us, however, is the addition of his

method to the great field of medical science. This history so full and remarkable can only be touched upon. We must pass over the early life of Hahnemann and begin with his discovery. He had become disgusted with the practice of medicine and devoted his time to translating as a means of livelihood.

In 1790 while translating Cullen's *Materia Medica* from English into German he was struck by the imperfect account of the action of cinchona bark, which was considered a specific for ague, and he determined to learn its action on the healthy human body. He had no thought of homeopathy at this time. After securing some bark and making a strong tincture he took a large dose. *This produced symptoms similar to the cases of ague that the bark was then curing.*

Hahnemann did not jump at any conclusions, he knew that he must have substantial proof which could only be obtained by long, hard labor and experiment. He studied the records of cases of cures by single remedies; he collected records of poisoning and applied the knowledge thus obtained; he made tests upon himself and members of his family; he tested other remedies which experience had taught were curative in certain diseases.

In 1796, after six years' strenuous labor, he published his first article in Hufeland's *Journal* entitled "A New Principle for Ascertaining the Curative Powers of Drugs."

Time forbids a description of the provings made by Hahnemann and his followers. To prove a drug is to learn its action on the healthy human body. The painstaking care with which this must be done would make one tremble at the gigantic task. A record of these provings is to be found in his "*Materia Medica Pura*."

In 1810 the "*Organon of the Art of Healing*" was published. In this he fully explains the new method of healing. His other important works are "*Chronic Diseases*" and "*Lesser Writings*."

Like all pioneers' experience the life of Hahnemann contained many hardships. However, in the last eight years, spent in Paris, he enjoyed an enormous practice, receiving as much as \$800,000 in fees during that time. He died July 2, 1843.

The cardinal principles of the method of treatment by symptom similarity are as follows: 1st, Disease is manifested by symptoms. 2nd, The knowledge of the action of drugs must be learned from experimentation on the healthy human body. 3rd, The curative relation between disease and drug action is based on the method of symptomsimilarity. *The similar remedy.* 4th, One drug should be given at a time. *The single remedy.* 5th, Remedies should be prescribed in the smallest dose that will cure. *The minimum dose.*

The first principle needs no elucidation, we have symptoms, objective or subjective, in every diseased state. If we are to treat sick human beings by the method of symptomsimilarity, it is obvious that we must know the action of drugs upon the healthy human organism. There are many reasons why animal experimentation cannot take its place. For example the susceptibility varies in different animals and the very important subjective symptoms, like the burning pains relieved by heat of arsenic, would be lacking. Just why cures are accomplished according to the method of symptomsimilarity is not the easiest matter to explain, but the following is a reasonable theory. When a poison is administered certain symptoms characteristic of it are produced. This is its direct or primary action. The body reacts against the action of the drug in an opposite direction, this reaction continuing past the me-

dian line. For example, constipation follows the use of a cathartic; depression, a stimulant; etc. It is the reaction of the body against the action of the drug which brings about a cure. A patient suffering from a disease presenting certain symptoms may not improve because the vital force is unable to react. If we give him a remedy which in its primary action possesses similar symptoms this will be accomplished. The body reacts more readily to a drug than to disease. To be sure the dose must vary according to the sensitiveness of the patient, to the form of disease and to the drug administered. It must be sufficient to bring about a reaction, however. The diseased body is more susceptible to the action of a drug having a similar primary action than the healthy one. This is because the action is in the same direction. It is obvious, therefore, that less medicine can be used to bring about curative results than may be required to make a proving on the healthy human body.

One drug should be given at a time, never in combination or alternation with another. We base our prescription upon the symptoms produced upon the healthy human body. When two or more drugs are proven singly we have absolutely no justification in combining or alternating them in the treatment of disease. We know nothing of the action of such combinations upon the healthy human body, and there is no foundation in fact for presuming that the symptoms of such a combination is the sum of the symptoms produced by their single provings. They may be very different. Drugs may be antagonistic or antidotal. We do not know which drug cures, thus no verifications can be recorded. Time is lost by such a practice. If a combination like chinium ars., hepar sulph., etc., is proven as such, it is considered a single remedy. When a remedy only partially covers the case we administer such until the symptoms peculiar to it have disappeared. It is then discontinued and after a careful review another is prescribed. The second is said to be complementary to the first. It completes the cure commenced by another. Often one drug is all that is necessary, again a number of complementary remedies may be required.

Much misunderstanding exists regarding dose. The actual size has nothing to do with the principle of symptomsimilarity. *It is simply the smallest dose that will cause reaction.* This may be the tincture in one case and the 30th potency in another. Hahnemann at first gave large doses but caused marked aggravations before reaction took place. This led him to diminish the size of his dose until the primary action was so slight and of such short duration that it was not manifest to the patient's senses. He recommended that drugs be diluted or potentized in the following manner: The first potency was made by adding a given number of parts of the tincture to alcohol to make the power equal 1-100. This is succeeded a number of times. Tinctures are of different strengths and the proportion added must vary.

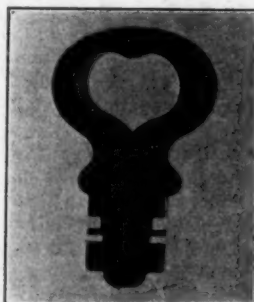
The proportion 1-100 represents the first potency. The second potency is made by adding one part of the first to ninety-nine parts of alcohol and succussing a number of times. Hahnemann said ten, twenty, fifty or more strokes against a somewhat hard, elastic body. I used one hundred. The third potency is made by taking one drop of the second to ninety-nine of alcohol and so on as far as desired. This is called the centesimal scale. Hering introduced the decimal scale where the proportion of one in ten is used instead of one in a hundred. The centesimal potencies are usually written



1—Made with Radium Brom. Pure direct on Plate 4 hours exposure.



2—Made with Radium Brom. Pure, through half inch Maple board (silhouette of Hahnemann cut out of lead foil).



3—Made with a 3x Trit. 2 hours exposure.



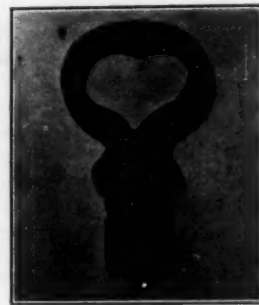
4—Made with 6x Trit. 12 hours exposure.



5—Made with our 12x Trit. 16 hours exposure.



6—Made with 30x Trit. 48 hours exposure.



7—Made with 60x Trit. 48 hours exposure.

(Radiographs by Boericke & Tafel)

thus 3, 6 or 12 with no sign following; the decimal are followed by X, as 3 X, 6 X or 12 X. Some substances like nitric acid, argentum nit, etc., must be prepared with distilled water in the lower potencies.

Insoluble substances are triturated with sugar of milk. Hahnemann considered all substances soluble after the third potency and then could be prepared in alcohol. It is more sure, however, not to dissolve them in alcohol until the sixth. Indeed, it is a question whether it is not advisable to use all insoluble remedies in trituration form.

Space does not permit of my going into the technique of homeopathic pharmacy. It is a subject of the utmost importance and one that I am greatly interested in.

A short time ago the only proof that medicine existed in the thirtieth potency was based solely upon clinical results. Last year absolute tangible demonstration was obtained when Boericke and Tafel succeeded in obtaining a good radiograph with their radium bromide in that strength, (vide figures 1-8). Low potencies are up to the third, medium from the third to twelfth, and high from the thirtieth up. Some drugs develop power by potentization. There is a force developed in the breaking up and subdivision of the molecule which does not exist in the crude form. Such will act better in medium or high potencies. Others are more active in the lower potencies or tinctures. I believe that we should not be hide-bound to any potency; personally I use all.

In addition to subjective and objective symptoms we must consider the following: pathogenetic symptoms, produced in the proving. (The pathogenesis of a drug is a record of its symptoms). Clinical symptoms are those not produced in the provings but which have disappeared in the diseased by the application of certain remedies. When such symptoms are repeatedly removed they may be admitted to the symptomatology of a

drug on the assumption that they would have appeared if there had been a proving made, or if a proving were carried further. They are added with great caution and ordinarily do not possess the same value as the pathogenetic symptoms.

Common symptoms are those general symptoms possessed by a number of drugs, as diarrhea, headache, etc.

Characteristic "key-note" or "leading" symptoms are those which individualize a remedy. Those which enable us to tell one from the other. If it were not for these our task would be most difficult. The "triangular red tip" of the tongue of rhus tox, the throbbing headache aggravated by bending the head forward of belladonna, the cramp-like pains relieved by bending double, by pressing something hard into the abdomen and by heat of colocynth, are familiar examples. Different drugs have some of the same characteristics. We see the necessity, therefore, of considering the whole case and basing our prescription upon the totality of the characteristic symptoms. It is only after repeated clinical verification that a symptom becomes a characteristic.

Hahnemann's scheme is the arrangement of symptoms under the anatomical portions of the body, as mind, sensorium, head, sight and hearing and ears, smell and nose, face, etc., without relation to the order of their development. This is simply to facilitate our work when searching for symptoms.

I wish to follow this short outline with the presentation of a few cases. I will choose some in which other methods have failed.

It occurred to me last winter that it would be a good plan to hold a clinic at the end of each lecture, when I would prescribe before the class for students requiring treatment. Also I invited them to bring in cases.

In February a student brought in this case: Male, age 51. Headache for forty-one years without obtain-

ing relief. Many of the best men were unsuccessful. Symptoms: Sense of pressure as from a dull weight in the right supraorbital region, sensitiveness to touch. This was constantly present. First on Fridays, then on Wednesdays, he would have severe pain starting in right supraorbital region and extending over the entire head. Pain increased in severity until his suffering would become so excruciating that he thought he would lose his reason. The slightest noise or jar was intolerable, could not even stand the faintest whisper. Confinement to bed was necessary one day each week. This he never escaped for forty-one years. *R Gelsemium*, gtt. x in half a glass of water, 5i half hour before meals, and at bed time. The remedy was prescribed two days before the weekly exacerbation. He had only slight trouble that day and has been entirely free from it ever since, excepting once, after he had discontinued the medicine for a time, there was the faintest suspicion of pain.

Male, 41. Similar case with a Monday exacerbation. Two drops of the tincture of gelsemium four times daily were necessary before obtaining results. Remember that gelsemium will not cure all such headaches, but only those having similar symptoms. We know by experience the value of *spigelia*, *iris versicolor*, sulphur, etc., in such headaches, and I wish to condemn any empiricism in prescribing.

We often hear that there is no medicinal treatment for pneumonia. Abundant experience with hospital and private cases convinces me beyond the shadow of a doubt of the great value of drugs in this or any other disease. Aconite, phosphorous, arsenic, antimonium tartaricum, bryonia, *rhus toxicodendron*, sulphur, or any drug indicated by individual characteristics may be needed.

Many pneumonia patients are treated at Flower Hospital during the winter and early spring. The only deaths in my three months' service were two old women with chronic nephritis, admitted in a moribund state. It was the nephritis rather than the pneumonia which caused death. Our patients recovered promptly, the temperature falling by lysis, the usual termination of homeopathically treated cases.

Our results with typhoid fever have been similarly gratifying. *Baptisia*, *rhus toxicodendron*, gelsemium, bryonia, *hyoscyamus* and opium, etc., may be indicated.

A physician friend called me to a case of pneumonia complicated with edema. The child's condition was such that he thought I would not arrive in time to see her alive. I asked if there was anything that he could do. He answered that he was at the "end of his rope," and if I could cure her he would believe in my method. I prescribed *lycopodium* 30th in repeated doses upon the following symptoms: dyspnea, motion of *alae nasi*, great accumulation of mucus, edema of lungs. The child improved at once and was out of danger in a few hours.

Valvular heart disease and chronic parenchymatous nephritis in a man about fifty years of age. Double murmur heard at apex, systolic murmur transmitted to the left; double murmur heard at second right intercostal space, systolic murmur transmitted to the neck. The murmurs were extremely pronounced. Urinary examination showed the presence of albumen, pus corpuscles, epithelia from the convoluted tubules containing fat, and granular casts. He was passing less than twenty ounces a day. Clinical symptoms: stupid and drowsy, dyspnoea, excessive oedema, no thirst. *Digitalis* was given for twenty-four hours in the usual way,

by the attending physician, with the result that the patient grew much worse. Citrate of caffeine was then substituted. On the following day the man was in marked stupor, showing every sign of fast approaching death. I suggested *Apis mellifica* as his remedy. Eight drops of the tincture were dissolved in a glass of water and a teaspoonful given every hour. In the next twenty-four hours the man passed one hundred and ten ounces of urine and showed very marked improvement. For about a week the average was one hundred ounces daily. By that time he was out of bed, the edema had disappeared and he presented no subjective symptoms. Unless you listened to his heart and examined his urine, you could not tell he were ill.

I have examined hundreds of heart cases during my service at the Flower and Metropolitan Hospitals as well as in my private practice and I consider that physiological medication is resorted to a vast number of times when the similar indicated remedy would do much better work. No one will deny that a dilated heart with broken compensation may require medication aimed to bring contraction, and a man of clinical experience should distinguish such. I have repeatedly verified the effectiveness of such remedies as *crataegus*, *kalmia*, *spigelia*, *iberis*, *cactus*, *sumbul*, *digitalis*, etc.

Space does not permit the report of cases, but I wish to say a few words about *cactus* because of the doubt existing regarding its action on the heart.

Those familiar with the proving of *cactus*, made by Dr. Rubini and his wife in 1862, can not agree with the statements following the recent experiments upon guinea pigs made at a prominent medical college. Experimental scientists should learn that it is necessary to know the action of a remedy upon the healthy human body.

"Sensation as if the heart were grasped by an iron hand" is a symptom I have verified many times. Some cases have been very acute and relief followed promptly. Aching and numbness of the left arm is another strong keynote; aggravation from lying on the left side.

Two cases by way of illustration:

Female, age 30. Conscious, heavy, constricted feeling about the heart, numbness of the hands, surging feeling over body, sometimes feels as if she were dying, convulsive action of heart, great exhaustion, can hardly attend to business. Physical examination showed an aortic stenosis and mitral regurgitation. Pulse 91 and weak. Under *cactus*, gtt. x in half a glass of water, 3ii four times daily, she improved rapidly and all her subjective symptoms disappeared. She writes that she feels perfectly well, being absolutely free from disagreeable sensations.

I was called one night to a case of angina in which the constrictive sensation was very marked. The patient was relieved after a few doses and had no sensation of pain whatever in less than an hour. I gave *cactus grandiflorus* every five minutes, same dose as above.

Male, aged 39. Neuritis of right arm lasting four months. No effect from former treatment. Trouble increased until he could not move hand or arm. Pain was intolerable at night, preventing sleep and causing restlessness; came on after sleeping by an open window. He was confined to bed when I was called, and before that time fear was a prominent symptom, causing him to look under the bed and in the closet before retiring. *R Aconite* 3rd in repeated doses. The next day he was much improved, having been able to sleep the prev-

ious night. On the second day, pain on motion only, and on the fifth day he could move hand and arm without any pain. He progressed rapidly to complete recovery. I gave aconite in the 5x for a time, also.

Some years ago, I cured a case of true epilepsy. The diagnosis was confirmed by three physicians, one of considerable prominence; one a general practitioner and the third a well known oculist. She was treated with bromides for two years. When they were stopped she was much worse. Symptoms: Prodromal itching of the skin, things seemed to be getting far away, head turned to the left, loss of consciousness and spasm, in which she drew up legs and kicked feet, opened and shut hands, purplish color of the face, stertorous breathing, laceration of the tongue, dilated pupils. Following the attack there was nausea, weakness, dull pain, as if bruised in the occiput and neck when lying down or from touch. Attacks had occurred after usings eyes. She had been fitted to glasses. I prescribed belladonna 30th, repeating the dose sometimes q.2h., sometimes four times a day, then gradually diminishing as she grew better. I discontinued belladonna and gave natrum muriaticum 30th for a short time, because of the great nervousness and palpitation of the heart. I resumed belladonna later. She gradually improved. I prescribed belladonna on March 5, 1906, and on May 14, 1906, she had her last attack. At first she would have a number of convulsions daily.

The power of medicine in surgical conditions is too often neglected. I have caused tumors of the breast (not cancers) to disappear under conium 3rd when the characteristic symptom *stony hardness* was present. *Stitching pain* is another leader. Phytolacca tincture when the breast is very sensitive, or takes on a bluish color. Iodin is another remedy that I have used with success, and many cases of cervical adenitis have been cured by it. I have one patient 76 years of age presenting a genuine carcinoma of the breast of ten years' duration. She has no cachexia. I stopped the sharp, shooting pains with conium 3rd. Later, hemorrhages appeared, some very profuse. Millefolium gtt. x in half glass of water, 5i every five minutes, controlled them absolutely. After the first dose the blood would drop, and has never failed to cease after the second. Finally the odor became very offensive and external deodorants proved of no value. Kreos. 6th, later 5x, upon the indications. Ulceration with thin putrid discharge and bluish color of parts. Kreosote not only stopped the extensive ulceration, but removed the odor as well. It is significant that after receiving an indicated

remedy her general health improved. She is in such good condition that I told her family that I expected her to live until she is over eighty.

This case shows what medicine can do to relieve a malignant disease.

Tertiary syphilitic ulcers of the knee, which, for over two years, had defied all treatment. There were about twelve to fifteen deep, round ulcers with regular margins and perpendicular edges, presenting a greyish floor and secreting a sanious pus. Pain and itching were absent. These ulcers covered the patella and surrounding parts, varying in size from one-fourth to one-half of an inch in diameter and one-fourth of an inch or more in depth. There was not the slightest doubt about the diagnosis—a clear history of primary and secondary syphilis was obtained and the ulcers themselves were characteristic. The following were his principal symptoms: Hard drinking, at least every day (once a month), the effects lasting several days; frequent inhibition of all kinds of drugs and mixtures; acne rosacea brought on by the abuse of alcohol; patient thin, quick, active. I concluded nux vomica was his constitutional drug. This was given, the 6th decimal tablet trituration, repeating one tablet a half hour before meals and at bed time. It is hardly necessary to say that all external treatment was discontinued. In less than two weeks the ulcers had healed, and over two years later when I heard from him they had not reappeared. A small boil was produced on the knee by the proving of nux vomica, but no such condition as described. The constitutional symptoms alone pointed to the proper medicine.

Male, aged 17. First, second and third toes of left foot crushed in a press, requiring amputation. Three unhealthy ulcers remained after operation. Patient suffered great pain and had very little sleep. These failed to heal in over three months' treatment. The drugs used by the attending surgeon were bichloride of mercury, creolin, balsam of Peru, ichthyol, calendula, aluminum acetate locally; hepar sulph. nux vom., silica and calendula internally and morphin hypodermically. Re-amputation was considered. I prescribed arnica 30th along with a dilute external dressing of the same remedy upon the indication, *fear of being struck by those coming towards him*. He grew better at once and was completely cured in nineteen days.

Many more cases could be recited, but the object of this paper is simply to interest you in that division of the great field of medical science which applies remedies by the method of symptomsimilarity.

The Physician's Library

Diseases of the Skin. By James H. Sequeira, M. D., Lond., F. R. C. S. Eng. Physician to the Skin Department and Lecturer on Dermatology at the London Hospital; Secretary of the British Section of the International Association of Dermatology and Syphilology; Editor of the British Journal of Dermatology. Second Edition. Cloth. 650 Pages. Illustrated. \$6.00 net. Philadelphia: P. Blakiston's Son & Co., 1915.

This work is one which will appeal especially to practitioners and students. The arrangement is excellent in that so far as possible the diseases are grouped from the standpoint of etiology. The subjects are discussed

briefly, histopathology being largely omitted and especial emphasis being placed upon clinical diagnosis and therapy. The illustrations are excellent and well chosen; the colored plates deserve special mention; the colorings being true to life. Most of the illustrations are taken from cases which one ordinarily sees and not from the most exaggerated cases.

The appendices will be found of particular value by the general practitioner. Appendix I discusses the value of the various mineral waters in the treatment of skin diseases; Appendix II the internal treatment by drugs; Appendix III external applications to the skin. Formulae are given, grouping the various applications as to their properties, i. e., soothing, antiseptic, antipruritic, keratolytic, reducing, parasitocides etc.

(Continued to p. 20)

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(Continued from p. 178.)

The Practice of Medicine. By Hobart Amory Hare, B. Sc., M. D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia. Third edition, revised and enlarged. Imperial octavo. 969 pages, with 142 engravings and 16 plates in colors and monochrome. Cloth, \$6.00 net. Philadelphia and New York: Lea & Febiger, 1915.

The new edition of this book exemplifies the chief characteristic of this author, practicability. All of his books are designed for every day use by busy practitioners and in consequence they are beacon lights, clearly pointing out the *via propria* in the most illuminating manner.

Hare has practically rewritten this edition and has given us the very latest thoughts in medical science. Treatment is the foundation stone of the book, although etiology, pathology and diagnosis are accorded full recognition. Every means of treating every condition is recorded and it would be difficult to find any serious omissions.

A comprehensive index is a feature and the printing leaves nothing to be desired.

With Sabre and Scalpel. The Autobiography of a Soldier and Surgeon. By John Allan Wyeth, M. D., LL. D. Cloth. 535 pages, with illustrations. \$3.00 net. New York: Harper & Brothers, 1914.

It is given to few men to see life in many phases. Most of us are commonplace and lead commonplace lives. Not so John A. Wyeth. He has been a farmer, woodsman, Confederate soldier, cotton planter, cattle buyer, river pilot, building contractor, land speculator, telegraph operator, physician and medical school president and, strange to relate, he has adorned each calling.

The events of his busy life as set down in this book are many and varied, all are fascinating and some are as romantic as if taken from the latest novel. Interspersed we find his philosophy of good hard sense, interwoven with narrative. It is impossible to single out the interesting features of the book, but we are struck by the calm, dispassionate and eminently fair way in which he treats the slavery question.

Dr. Wyeth will stand as one of the great men in American medicine, because he has been a doer of deeds. He is one of the fathers of post-graduate medical education and his bloodless shoulder and hip joint operation and work on the carotid artery stamp him as one of our leading surgeons.

This book is one which will hold the reader from cover to cover, because it appeals to the best in every man.

Cancer. By L. Duncan Bulkley, M. D., of the New York Skin and Cancer Hospital. Cloth. 230 pages. Price, \$1.50. New York; Paul B. Hoeber, 1915.

In this monograph the author presents his views on a most important subject. It must be said that he disagrees with the expressed views of other cancer experts. This is due in measure to the fact that our knowledge of the disease is not as definite as that concerning other conditions.

The book presents lectures delivered at the Skin and Cancer Hospital to physicians, and even if one cannot accept Bulkley's ideas in their entirety, they are worthy of serious consideration.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume IV., Number 1. (Feb-

ruary, 1915). Octavo of 185 pages, 41 illustrations. Published Bi-Monthly. Price per year, Paper, \$8.00, Cloth, \$12.00. Philadelphia and London; W. B. Saunders Company, 1915.

This issue contains 18 clinics on a variety of clinical subjects. Among the more striking are five on fistulae, one on aneurism of the brachial artery and one on sarcoma of the right femur. Dr. Harvey R. Gaylord of Buffalo, presents an instructive paper on the relation of cancer research to the clinical aspects of cancer. This number is a valuable one.

Differential Diagnosis. Presented through an Analysis of 317 cases. By Richard C. Cabot, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Octavo of 709 pages 254 illustrations. Cloth, \$5.50; half morocco, \$7.00. Philadelphia and London; W. B. Saunders Company, 1914.

This volume analyzes the meaning of the following symptoms when dealing with disease: tumors, vertigo, diarrhea, dyspepsia, hematemesis, enlarged glands, melena, swelling of the face, hemoptysis, edema of legs, frequent micturition, fainting hoarseness, pallor, swelling of the arm, delirium, palpitation, arrhythmia, tremor, acites and abdominal enlargement.

Clinically the book is of great assistance in differentiating between obscure conditions and by this form of classification the author presents his subject matter with vivid clarity.

The Twelve Tissue Remedies of Schuessler. By William Boericke, M. D. and Willis A. Dewey, M. D. Fifth Edition. Rewritten and Enlarged. Cloth. 450 pages. \$2.50 net. Philadelphia: Boericke & Tafel, 1914.

This is a complete resumé of Schüssler's writings on the subject, to which has been added a large amount of independent data. As a result a comprehensive volume of the present day conception of the tissue remedies is presented.

Baby's Welfare.

One of the handsomest and most useful books ever issued as an advertising medium is *Baby's Welfare: Proper Care and Feeding*, published by Borden's Condensed Milk Co. Its text is replete with valued hints to the mother on feeding, clothing, airing and bathing the baby, as well as the proper means to adopt in emergencies until the physician arrives. Incidentally the many virtues of Borden's Eagle Brand Condensed Milk as a baby food are brought out, although this would seem almost beside the point, when one recalls that mothers have been raising their babies on this milk for nearly three score years.

Not the least attractive feature of the book is its illustrative decoration. Dozens of baby pictures adorn its pages and from the fat, healthy, happy and well-fed appearance of these cherubs they are doubtless Borden babies, living and creeping (in a few instances walking) examples of the efficacy of their principal article of diet.

Dr. W. J. E. Kirk, the author, is deserving of congratulations on the excellence, timeliness and value of this book.

Pruritus ani may be the result of irritating discharges from simple or malignant growths in the bowel, from certain forms of colitis or proctitis, especially granular proctitis.